```
=> fil reg
FILE 'REGISTRY' ENTERED AT 17:00:24 ON 15 JUN 2007
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STRUCTURE FILE UPDATES:   14 JUN 2007  HIGHEST RN 937362-79-3
DICTIONARY FILE UPDATES:  14 JUN 2007  HIGHEST RN 937362-79-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d que stat l8
L4              SCR 2043
L6              STR
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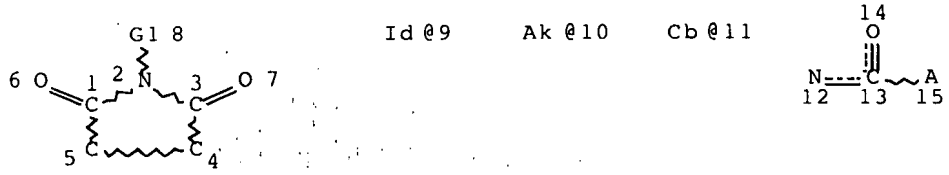


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VAR G1=9/10/11
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NSPEC   IS RC     AT  15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L8          502 SEA FILE=REGISTRY SSS FUL L6 AND L4

100.0% PROCESSED    6958 ITERATIONS                    502 ANSWERS
SEARCH TIME: 00.00.01


=> d que stat l13
L13             STR
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Id @1 Ak @2 G1 3

VAR G1=1/2
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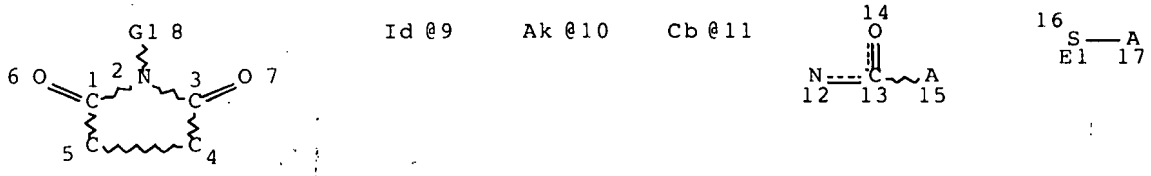
GGCAT IS SAT AT 2
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M3 C AT 2

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE

=> d que stat l21
L21 STR



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HCOUNT IS E1 AT 16
NSPEC IS RC AT 15
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CONNECT IS E1 RC AT 16
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

=> d his nofile

(FILE 'HOME' ENTERED AT 16:01:36 ON 15 JUN 2007)

FILE 'HCAPLUS' ENTERED AT 16:01:42 ON 15 JUN 2007
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SEL RN

FILE 'REGISTRY' ENTERED AT 16:02:10 ON 15 JUN 2007
L2 40 SEA ABB=ON PLU=ON (724722-20-7/BI OR 724722-47-8/BI OR
724722-58-1/BI OR 724722-75-2/BI OR 107-15-3/BI OR
110-52-1/BI OR 135649-01-3/BI OR 159540-80-4/BI OR
177583-27-6/BI OR 2549-93-1/BI OR 2579-20-6/BI OR
266313-95-5/BI OR 4246-51-9/BI OR 55750-48-6/BI OR

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                60-24-2/BI OR 629-03-8/BI OR 64987-85-5/BI OR 664348-92-9
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L3              STR

     FILE 'REGISTRY' ENTERED AT 16:21:26 ON 15 JUN 2007
L4              SCR 2043
L5           50 SEA SSS SAM L3 AND L4

     FILE 'LREGISTRY' ENTERED AT 16:23:59 ON 15 JUN 2007
L6              STR L3

     FILE 'REGISTRY' ENTERED AT 16:24:27 ON 15 JUN 2007
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L8          502 SEA SSS FUL L6 AND L4
                SAV L8 RAB024/A
L9            8 SEA ABB=ON  PLU=ON  L2 AND L8
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                SAV L15 RAB024S1/A
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L18      362292 SEA ABB=ON  PLU=ON  L10
L19          65 SEA ABB=ON  PLU=ON  L17 AND L18
L20          29 SEA ABB=ON  PLU=ON  L19 AND (1840-2002)/PY,PRY,AY

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L21             STR L6

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L24           1 SEA ABB=ON  PLU=ON  L23
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                BIOSYNTH?
L26          43 SEA ABB=ON  PLU=ON  L19 AND L25
L27          17 SEA ABB=ON  PLU=ON  L26 AND (1840-2002)/PY,PRY,AY
L28             QUE ABB=ON  PLU=ON  BIOLOG?(3A)(CHEMIC? OR COMPOUND OR
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L29           4 SEA ABB=ON  PLU=ON  L27 AND L28
L30          29 SEA ABB=ON  PLU=ON  L27 OR L20 OR L29
L31           4 SEA ABB=ON  PLU=ON  L29 NOT L24
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L32 25 SEA ABB=ON PLU=ON L30 NOT (L24 OR L29)

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 17:01:03 ON 15 JUN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 15 Jun 2007 VOL 146 ISS 26
FILE LAST UPDATED: 14 Jun 2007 (20070614/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l24 ibib abs hitstr hitind

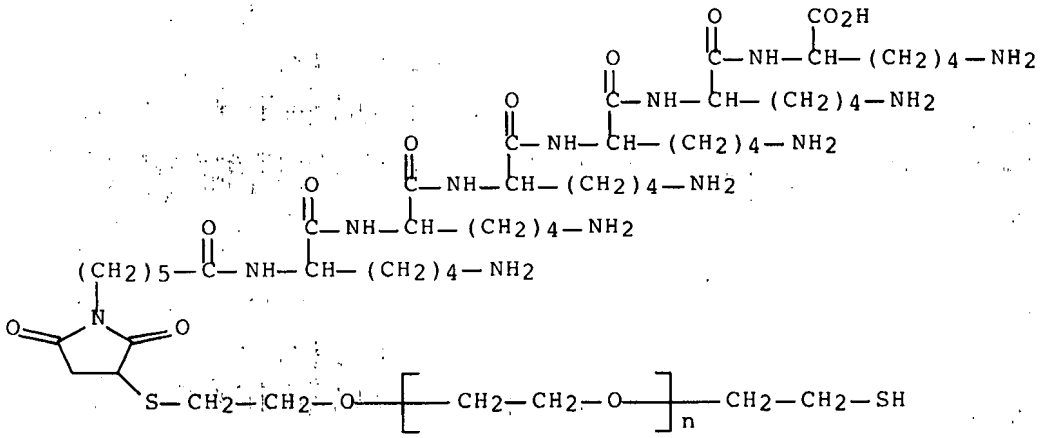
L24 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:340027 HCAPLUS Full-text
DOCUMENT NUMBER: 140:117092
TITLE: Design and synthesis of pH-responsive polymeric carriers that target uptake and enhance the intracellular delivery of oligonucleotides
AUTHOR(S): Murthy, Niren; Campbell, Jean; Fausto, Nelson; Hoffman, Allan S.; Stayton, Patrick S.
CORPORATE SOURCE: Department of Bioengineering, University of Washington, Seattle, WA, 98195, USA
SOURCE: Journal of Controlled Release (2003), 89(3), 365-374
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The delivery of biomol. therapeutics that function intracellularly remains a significant challenge in the field of biotechnol. In this report, a new family of polymeric drug carriers that combine cell targeting, a pH-responsive membrane-disruptive component, and serum-stabilizing polyethylene glycol (PEG) grafts, is shown to direct the uptake and endosomal release of oligonucleotides in a primary hepatocyte cell line. These polymers are called encrypted polymers and are graft terpolymers that consist of a hydrophobic, membrane-disruptive backbone onto which hydrophilic PEG chains have been grafted through acid-degradable linker acetal linkages. In this report, the ability of the encrypted polymers to deliver rhodamine-labeled oligonucleotides or PEG-FITC (a model macromol. drug) (5 kDa) into the cytoplasm of hepatocytes was investigated by fluorescence microscopy. Two new encrypted polymer derivs. (polymers E2 and E3) were synthesized that contained lactose for targeting to hepatocytes. Polymer E2 also has PEG-FITC conjugated to it, as a model macromol. drug, and polymer E3 contains a pendant

hexalysine moiety for complexing oligonucleotides. The results of the fluorescence microscopy expts. show that the encrypted polymers direct vesicular escape and efficiently deliver oligonucleotides and macromols. into the cytoplasm of hepatocytes.

IT 646535-00-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(design and synthesis of pH-responsive polymeric carriers that target uptake and enhance the intracellular delivery of oligonucleotides)

RN 646535-00-4 HCAPLUS

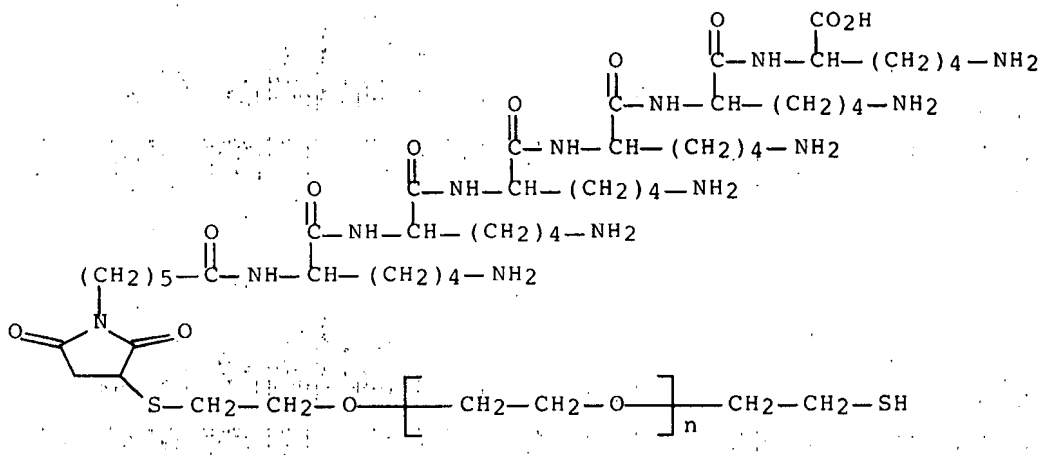
CN Poly(oxy-1,2-ethanediyl), α-(2-mercaptoethyl)-ω-hydroxy-, ether with N2-[6-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxohexyl]-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysine (9CI) (CA INDEX NAME)



IT 646535-00-4DP, reaction products with acrylic polymer derivative
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design and synthesis of pH-responsive polymeric carriers that target uptake and enhance the intracellular delivery of oligonucleotides)

RN 646535-00-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-(2-mercaptoethyl)-ω-hydroxy-, ether with N2-[6-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxohexyl]-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysine (9CI) (CA INDEX NAME)



CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 35
IT 2127-03-9P 646534-98-7P 646534-99-8P 646535-00-4P
646535-01-5P 646535-02-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(design and synthesis of pH-responsive polymeric carriers that target uptake and enhance the intracellular delivery of oligonucleotides)
IT 646535-00-4DP, reaction products with acrylic polymer derivative
646535-01-5DP, reaction products with acrylic polymer derivative
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(design and synthesis of pH-responsive polymeric carriers that target uptake and enhance the intracellular delivery of oligonucleotides)
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l29 ibib abs hitstr hitind 1-4

L29 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1060761 HCAPLUS Full-text
DOCUMENT NUMBER: 142:36914
TITLE: Multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector molecules
INVENTOR(S): Kiessling, Laura L.; Griffith, Byron R.; Gestwicki, Jason E.; Strong, Laura
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 76 pp., Cont.-in-part of U.S. Ser. No. 815,296.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004248801	A1	20041209	US 2004-806056		200403 22
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US 2003125262	A1	20030703	US 2001-815296		200103 21
			<--		
PRIORITY APPLN. INFO.:			US 2000-191014P	P	200003 21
			<--		
			US 2001-815296	A2	200103 21
			<--		
			US 2003-456778P	P	200303 21

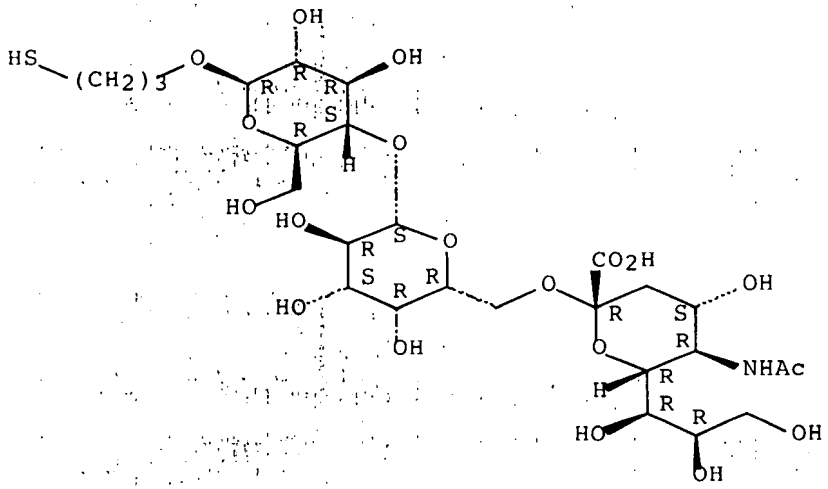
AB This invention provides multivalent ligands which carry or display at least one recognition element (RE), and preferably a plurality of recognition elements, for binding directly or indirectly to cells or other biol. particles or more generally by binding to any biol. mol. The multivalent ligands provided can most generally function for binding or targeting to any biol. particle or mol. and particularly to targeting of cells or cell types or viruses, for cell aggregation and generally for macromol. assembly of biol. macromols. The multivalent ligands of this invention are generally applicable for creating scaffolds (assemblies) of chemical or biol. species, including without limitation, antigens, epitopes, ligand binding groups, ligands for cell receptors (cell surface receptors, transmembrane receptors and cytoplasmic receptors), and various macromols. (nucleic acids, carbohydrates, saccharides, proteins, peptides, etc.). In these scaffolds, the number, spacing, relative positioning and relative orientation of recognition elements can be controlled. Multivalent ligands of this invention can carry or display at least one signal recognition element (SRE), and preferably a plurality of signal recognition elements, and modulate biol. responses in biol. systems. The SRE is selected from an amino acid, peptide, protein, derivatized peptide, epitope, monosaccharide, disaccharide, polysaccharide, nucleic acid, cell nutrient, antigen, small drug-like compound, hapten, antibody or fragment, or cell surface receptor. Multivalent ligands of this invention can carry or display at least one binding recognition element (BRE), and preferably a plurality of binding recognition elements, optionally in combination with one or more SRE, and modulate biol. responses in biol. systems. The invention also relates to methods for aggregating biol. particles and macromols. and for modulating biol. response employing the multivalent ligands provided.

IT 362663-20-5
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

RN 362663-20-5 HCAPLUS

CN β-D-Glucopyranoside, 3-mercaptopropyl O-(N-acetyl-α-neuraminosyl)-(2→6)-O-β-D-galactopyranosyl-(1→4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



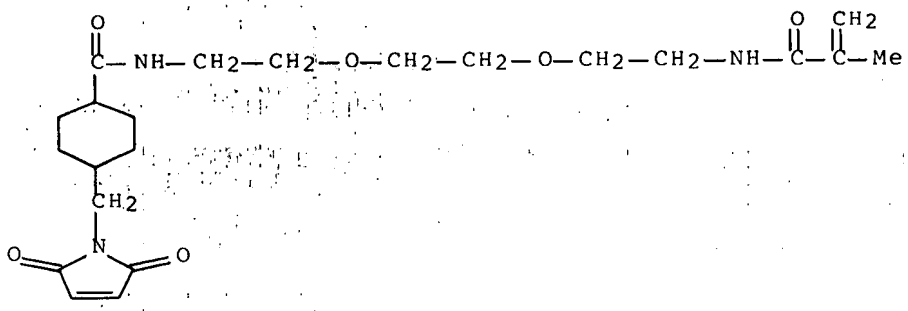
IT 804565-00-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

RN 804565-00-2 HCAPLUS

CN Cyclohexanecarboxamide, 4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]-N-[2-[2-[2-[(2-methyl-1-oxo-2-propenyl)amino]ethoxy]ethoxy]ethyl]-, polymer with N-(2,3-dihydroxypropyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

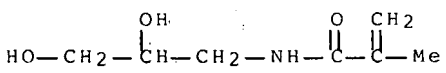
CM 1

CRN 804564-99-6
CMF C22 H33 N3 O6



CM 2

CRN 41601-36-9
CMF C7 H13 N O3



IC ICM A61K038-17
ICS C12N015-85
INCL 514012000; 435455000
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 9
IT Biology
Muscle
(cell; multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)
IT Metals, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(chelating agent; multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)
IT Lipids, biological studies
Macromolecular compounds
Peptides, biological studies
Proteins
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, multivalent; multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)
IT Adhesion, biological
Agglutination test
Animal cell
Animal virus
Animals
Antibiotics
Antitumor agents
Apoptosis
B cell (lymphocyte)
Cell activation
Cell aggregation
Cell migration
Cell proliferation
Chemotaxis
Diagnostic agents
Drugs
Endothelium
Epithelium
Erythrocyte
Eubacteria
Eukaryota
Fluorescent substances
Genomic library
Hematopoietic precursor cell
Human
Immune system
Immunoblotting

Immunohistochemistry
Immunomodulators
Labels
Leukocyte
Linking agents
Lymphocyte
Mammalia
Neuron
Neutrophil
Nutrients
PCR (polymerase chain reaction)
Pathogen
Prokaryota
Protein sequences
Signal transduction, biological
Solid phase synthesis supports
Stem cell
T cell (lymphocyte)
Vaccines
Virus
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

IT Enzymes, biological studies
Macromolecular compounds
Polyesters, biological studies
Polyethers, biological studies
Polymers, biological studies
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

IT Antibodies and Immunoglobulins
Antigens
Biochemical compounds
Carbohydrates, biological studies
Disaccharides
G protein-coupled receptors
Glycoconjugates
Lipids, biological studies
Monosaccharides
Nucleic acids
Polysaccharides, biological studies
Reagents
Trisaccharides
Tumor antigens
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(multivalent; multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

IT Alcohols, biological studies
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(polyhydric; multivalent ligands comprising signal recognition

element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

IT 7440-02-0D, Nickel, chelates and conjugates 9003-05-8, Polyacrylamide 11028-71-0, Concanavalin A 25087-26-7, Polymethacrylic acid 59880-97-6 64364-50-7 204934-16-7, BODIPY TR 362663-20-5 804564-97-4
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

IT 804565-00-2P 804565-03-5DP, hydroxyethylamide/lysine amide derivs.
RL: SPN (Synthetic preparation); PREP (Preparation)
(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

L29 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:591145 HCAPLUS Full-text
DOCUMENT NUMBER: 139:138724
TITLE: Integrin targeted imaging agents
INVENTOR(S): Lanza, Gregory; Wickline, Samuel A.; Harris, Tom
PATENT ASSIGNEE(S): Barnes Jewish Hospital, USA; Bristol-Myers Squibb Medical Imaging, Inc.
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062198	A2	20030731	WO 2003-US2380	200301 24
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WO 2003062198	A3	20050804		
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				24
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			WO 2003-US2380	W
				200301
				24

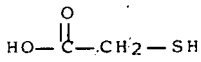
OTHER SOURCE(S): MARPAT 139:138724

AB Emulsions preferably of nanoparticles formed from high boiling liquid perfluorochem. substances, said particles coated with a lipid/surfactant coating are made specific to regions of activated endothelial cells by coupling said nanoparticles to a ligand specific for αvβ3 integrin, other than an antibody. The nanoparticles may further include biol. active agents, radionuclides, or other imaging agents. Examples are provided of tumor, atherosclerosis and carotid balloon injury MRI using αvβ3 integrin-targeting nanoparticles comprising, in addition to the targeting agent, a gadolinium chelate.

IT 68-11-1, Mercaptoacetic acid, reactions 569328-04-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(integrin targeted imaging and therapeutic agents)

RN 68-11-1 HCAPLUS

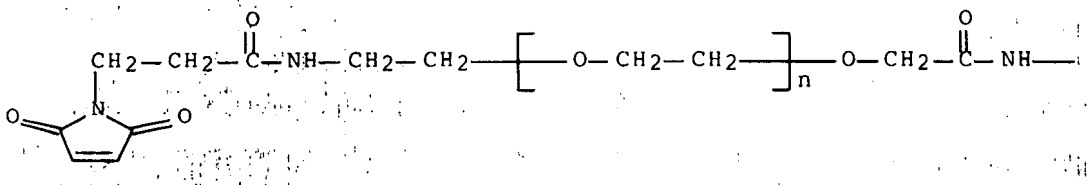
CN Acetic acid, 2-mercapto- (CA INDEX NAME)



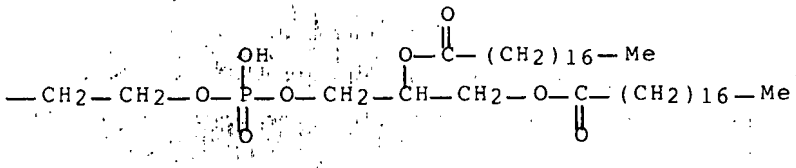
RN 569328-04-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[[3-(2,5-dihydro-2,5-dihydro-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]-ω-[[(10R)-7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxooctadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphatriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07D
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 8, 9
IT Lipids, biological studies
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(coating; integrin targeted perfluorocarbon-based nanoparticle imaging agents)
IT Polyoxyalkylenes, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(linker; integrin targeted imaging and therapeutic agents)
IT Peptides, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(linkers; integrin targeted imaging and therapeutic agents)
IT 68-11-1, Mercaptoacetic acid, reactions 569328-04-7 569328-06-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(integrin targeted imaging and therapeutic agents)
IT 67-43-6D, Diethylenetriaminepentaacetic acid, gadolinium complexes 22541-19-1D, Gadolinium ion, complexes, biological studies 60239-18-1D, 1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetic acid, gadolinium complexes
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(integrin targeted perfluorocarbon-based nanoparticle imaging agents)
IT 14133-76-7D, Technetium 99, complexes, biological studies
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(metastable; integrin targeted imaging agents)

L29 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:813875 HCAPLUS Full-text
DOCUMENT NUMBER: 137:329436

TITLE: Prodrugs via acylation with cinnamate
INVENTOR(S): Gilbert, Carl W.; McGowan, Eleanor B.; Black, Kirby S.; Harper, Gregory T. P.
PATENT ASSIGNEE(S): Cryolife, Inc., USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083067	A2	20021024	WO 2002-US11330	200204 12
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WO 2002083067	A3	20031211		
WO 2002083067	A9	20040226		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002187992	A1	20021212	US 2002-66306	200201 31
			<--	
US 6774116	B2	20040810		
CA 2444264	A1	20021024	CA 2002-2444264	200204 12
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AU 2002258764	A1	20021028	AU 2002-258764	200204 12
			<--	
EP 1395256	A2	20040310	EP 2002-728730	200204 12
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005504006	T	20050210	JP 2002-580872	200204 12
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PRIORITY APPLN. INFO.:			US 2001-284304P P	200104 17
			<--	
			US 2001-315782P P	200108 28

<--
US 2002-66306 A 200201 31
<--
WO 2002-US11330 W 200204 12
<--

AB A prodrug composition containing a cinnamate moiety and a biol. active mol. moiety which can be released by hydrolysis or activated by light is disclosed. The cinnamate moiety can have substituents of various electronically donating or electronically withdrawing groups to modify the cinnamate moiety's elec. properties as well as photo reactivities for the purpose of achieving a proper hydrolysis rate of the acyl bond between the biol. active mol. moiety and the cinnamic acid backbone. The biol. active mol. can be any biol. active agent or diagnostic, for example, a chemotherapeutic such as a paclitaxel, camptothecin, doxorubicin, amethopterin, etoposide, or fluconazole. The prodrug composition can be modified to add a carrier moiety on the prodrug composition for targeting or to facilitate uptake of the drug. The prodrug compns. can be activated with an energy source to release the drug at the desired site. Representative energy sources can be in the form of elec. force, ultrasound, light or radiation of a radioactive material which can be administered either externally or internally.

IT 165942-79-0DP, NR-LU 10, conjugates with paclitaxel derivative and cinnamate linker
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of prodrugs via acylation with cinnamate for drug release by hydrolysis or activation by energy source)

RN 165942-79-0 HCAPLUS

CN Immunoglobulin G2b, anti-(human tumor) Fab fragment (mouse monoclonal NR-LU-10 γ2b-chain), disulfide with mouse monoclonal NR-LU-10 κ-chain, oxo[[N,N'-[1-(3-oxopropyl)-1,2-ethanediyl]bis[2-mercaptoacetamidato]](4-)-N,N',S,S']technetate(1-)-99mTc conjugate (CA INDEX NAME)

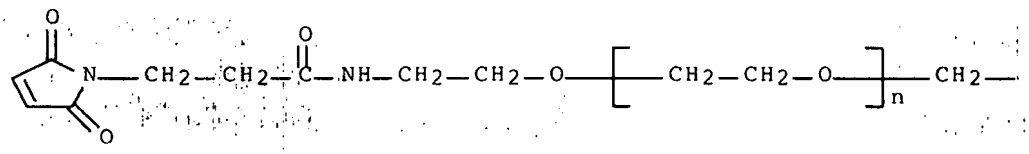
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 473440-35-6 473440-35-6D, conjugates with monoclonal antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of prodrugs via acylation with cinnamate for drug release by hydrolysis or activation by energy source)

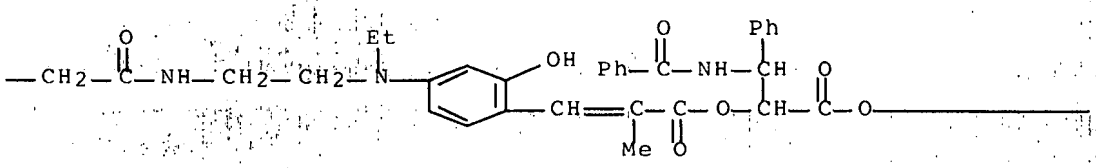
RN 473440-35-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[2-[[4-[3-[(1R,2S)-1-[[[(2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl]oxy]carbonyl]-2-(benzoylamino)-2-phenylethoxy]-2-methyl-1-oxo-1-propenyl]-3-hydroxyphenyl]ethylamino]ethyl]amino]-3-oxopropyl]-ω-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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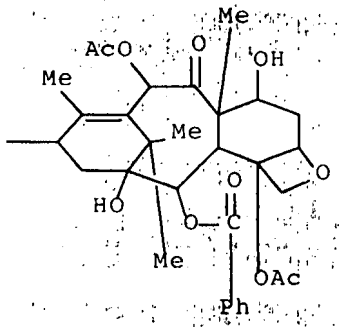
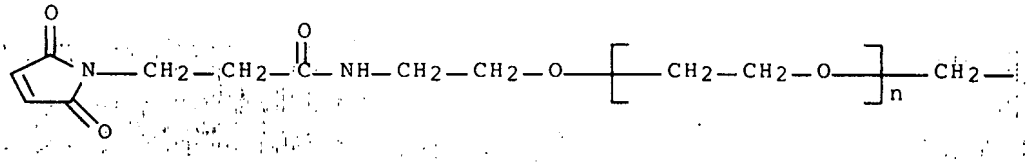


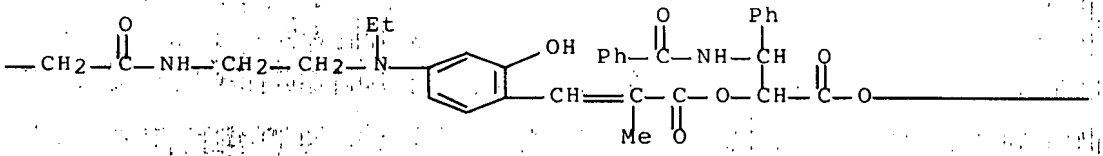
RN 473440-35-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[2-[[4-[3-[(1R,2S)-1-[[[(2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl]oxy]carbonyl]-2-(benzoylamino)-2-phenylethoxy]-2-methyl-1-oxo-1-propenyl]-3-hydroxyphenyl]ethylamino]ethyl]amino]-3-oxopropyl]-ω-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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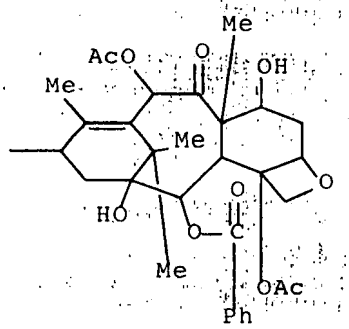

IC ICM A61K

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 25

IT Radionuclides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radiation from; preparation of prodrugs via acylation with cinnamate for drug release by hydrolysis or activation by energy source)

IT 165942-79-0DP, NR-LU 10, conjugates with paclitaxel derivative and cinnamate linker
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of prodrugs via acylation with cinnamate for drug release by hydrolysis or activation by energy source)

IT 473440-33-4 473440-34-5D, conjugates with monoclonal antibodies
473440-35-6 473440-35-6D, conjugates with monoclonal antibodies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of prodrugs via acylation with cinnamate for drug release by hydrolysis or activation by energy source)

L29 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:519335 HCAPLUS Full-text
DOCUMENT NUMBER: 135:111977
TITLE: Diagnostic/therapeutic agents having phospholipid-based microbubbles coupled to one or more vectors
INVENTOR(S): Klaveness, Jo; Rongved, Pal; Hogset, Anders; Tolleshaug, Helge; Naevestad, Anne; Hellebust, Halldis; Hoff, Lars; Cuthbertson, Alan; Lovhaug, Dagfinn; Solbakken, Magne
PATENT ASSIGNEE(S): Nycomed Imaging As, Norway
SOURCE: U.S., 89 pp., Cont.-in-part of U.S. Ser. No. 958,993.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6261537	B1	20010717	US 1997-960054	199710 29
CN 1234742	A	19991110	CN 1997-199047 <--	199710 28
HU 9904595	A2	20000428	HU 1999-4595 <--	199710 28
AT 318618	T	20060315	AT 1997-910514 <--	199710 28
ES 2264159	T3	20061216	ES 1997-910514 <--	199710 28
EP 1442751	A1	20040804	EP 2004-7226 <--	199804 24
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
ES 2224379	T3	20050301	ES 1998-917461 <--	199804 24
KR 2000052829	A	20000825	KR 1999-703658 <--	199904 27
US 2002102215	A1	20020801	US 2001-765614	200101 22

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US 2002102217	A1	20020801	US 2001-925715	200108 10
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US 6680047	B2	20040120		
CN 1440816	A	20030910	CN 2002-160420	200212 30
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US 2004141922	A1	20040722	US 2003-722075	200311 26
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US 2005002865	A1	20050106	US 2003-734730	200312 15
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US 2007036722	A1	20070215	US 2006-498651	200608 03
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			GB 1996-22367 A	199610 28
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			GB 1996-22368 A	199610 28
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			GB 1997-699 A	199701 15
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			GB 1997-8265 A	199704 24
			<--	
			GB 1997-11842 A	199706 06
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			GB 1997-11846 A	199706 06
			<--	
			US 1997-49264P P	199706 06
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			US 1997-49265P P	199706 06
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			US 1997-49268P P	199706

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US 1997-958993	A2		199710 28
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GB 1996-22369	A		199610 28
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GB 1997-2195	A		199702 04
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GB 1997-11837	A		199706 06
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GB 1997-11839	A		199706 06
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US 1997-49263P	P		199706 07
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US 1997-49266P	P		199706 07
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US 1997-959206	A		199710 28
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US 1997-960054	A1		199710 29
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EP 1998-917461	A3		199804 24
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US 2001-765614	B1		200101 22
<--			
US 2001-925715	A1		200108 10
<--			
US 2003-722075	A2		200311 26

AB Targetable diagnostic and/or therapeutically active agents, e.g. ultrasound contrast agents, having reporters comprise gas-filled microbubbles stabilized by monolayers of film-forming surfactants, the reporter being coupled or linked to at least one vector. The gas is air, nitrogen, oxygen, carbon dioxide, hydrogen, an inert gas, a sulfur fluoride, selenium hexafluoride, a low mol. weight hydrocarbon, a ketone, an ester, a halogenated low mol. weight hydrocarbon or

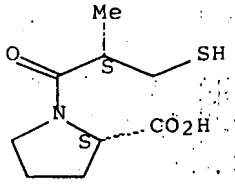
their mixts. The film-forming surfactant material is one or more phospholipids selected from the group consisting of phosphatidylserines, phosphatidylglycerols, phosphatidylinositols, phosphatidic acids and cardiolipins. A therapeutic agent is an antineoplastic agent, blood product, biol. response modifier, antifungal agent, hormone or hormone analog, vitamin, enzyme, antiallergic agent, tissue factor inhibitor, platelet inhibitor, coagulation protein target inhibitor, fibrin formation inhibitor, fibrinolysis promoter, antiangiogenic, circulatory drug, metabolic potentiator, antitubercular, antiviral, vasodilator, antibiotic, anti-inflammatory, antiprotozoal, antirheumatic, narcotic, opiate, cardiac glycoside, neuromuscular blocker, sedative, local anesthetic, general anesthetic or genetic material. For example, an endothelial cell adhesion of phosphatidylserine-encapsulated perfluorobutane microbubbles coated with polylysine was higher than adhesion of uncoated microbubbles. Also, a thrombus was detected by ultrasound in patients with suspected venous thrombosis using i.v. phosphatidylserine-encapsulated microbubbles. The microbubbles contained inactivated human thrombin-succinyl-PEG 3400-distearoylphosphatidylethanolamine incorporated into the encapsulating membrane.

IT 62571-86-2, Captopril
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)

RN 62571-86-2 HCAPLUS

CN L-Proline, 1-[(2S)-3-mercapto-2-methyl-1-oxopropyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

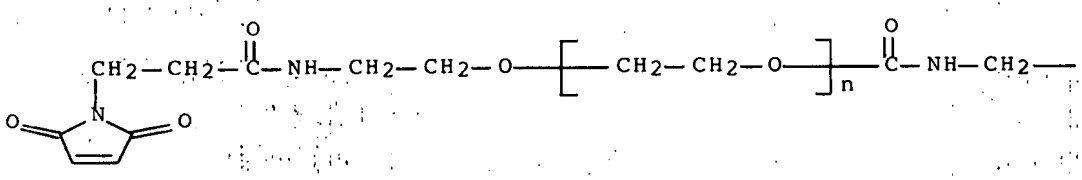


IT 207403-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)

RN 207403-10-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]-ω-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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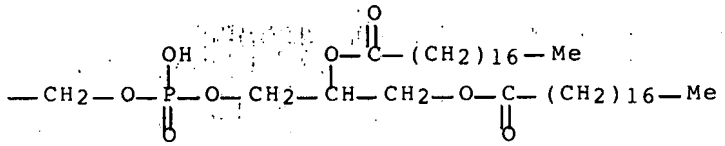
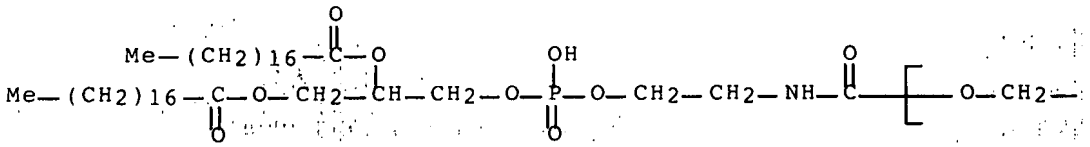


IT 207302-63-4P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)

RN 207302-63-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]-ω-hydroxy-, ether with L-arginylglycyl-L-α-aspartyl-S-[1-[3-[(2-hydroxyethyl)amino]-1-oxopropyl]-2,5-dioxo-3-pyrrolidinyl]-L-cysteine (9CI) (CA INDEX NAME)

PAGE 1-A



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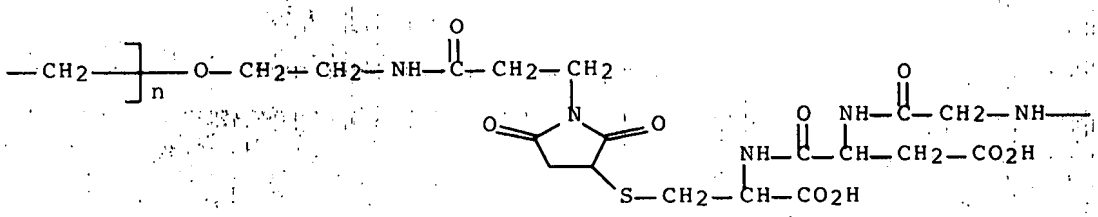

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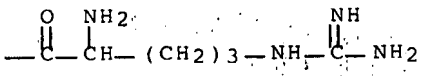

IC ICM A61B008-00
ICS A61B005-055; A61K051-00; A61K049-04; A61K009-14
INCL 424009520
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 8
IT Hormones, animal, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(and analogs; preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)
IT Hydrocarbons, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(halo; preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)
IT Hydrocarbons, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(low-mol.-weight; preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)
IT Ketones, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(perfluoro; preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)
IT Ethers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(perfluoroalkyl; preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)
IT Cardiolipins
Enzymes, biological studies
Esters, biological studies
Fibronectins
Ketones, biological studies
Opioids
Peptides, biological studies
Perfluorocarbons
Phosphatidic acids
Phosphatidylglycerols
Phosphatidylinositols
Phosphatidylserines
Vitamins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)
IT 57-88-5, Cholesterol, reactions 75-31-0, Isopropylamine, reactions 106-89-8, Epichlorohydrin, reactions 108-00-9, 2-Dimethylaminoethylamine 108-30-5, Succinic anhydride, reactions 544-77-4, 1-Iodohexadecane 546-18-9, 5β-Cholanic acid 1142-20-7 3303-84-2 4537-76-2, Distearoylphosphatidylethanolamine 7144-08-3, Cholesteryl chloroformate 14199-15-6, Methyl 4-hydroxyphenylacetate 55750-62-4, N-Succinimidyl-3-maleimidopropionate 62571-86-2, Captopril 72040-63-2 109292-46-8 125720-21-0 136268-87-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more

vectors)

IT 29121-23-1P 72224-27-2P 73670-24-3P 92548-59-9P 99518-27-1P
115399-07-0P 120074-77-3P 159156-96-4P 207287-12-5P
207287-28-3P 207287-31-8P 207292-75-9P 207292-78-2P
207403-10-9P 248253-82-9P 248253-84-1P 350256-59-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)

IT 57-88-5DP, Cholesterol, conjugates with drugs 9013-20-1DP, Streptavidin, reaction products with polyethoxylated phospholipid derivative 33276-37-8P 137056-72-5P 148001-65-4P 195618-80-5P
207287-14-7P 207287-15-8P 207287-17-0P 207287-18-1P
207287-19-2P 207287-20-5P 207287-21-6P 207287-22-7P
207287-23-8P 207287-24-9P 207287-27-2P 207287-29-4P
207287-32-9P 207292-74-8P 207292-79-3P 207292-80-6P
207292-81-7P 207292-82-8P 207302-62-3P 207302-63-4P
207302-66-7P 207302-67-8P 207302-69-0P 207400-86-0P
248253-84-1DP, carboxylated, reaction products with streptavidin
350256-57-4P 350256-58-5P 350256-60-9P 350560-86-0DP, biotinylated
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)

IT 58-85-5, Biotin 58-85-5D, Biotin, reaction products with antibodies or oligonucleotides 59-05-2, Methotrexate 76-19-7, Perfluoropropane 124-38-9, Carbon dioxide, biological studies 355-25-9, Perfluorobutane 678-26-2, Perfluoropentane 1333-74-0, Hydrogen, biological studies 2551-62-4, Sulfur hexafluoride 4537-78-4, Distearoylphosphatidylglycerol 4539-70-2, Distearoylphosphatidylcholine 7207-68-3, 3',5'-O-Dipalmitoyl-5-fluoro-2'-deoxyuridine 7727-37-9, Nitrogen, biological studies 7782-44-7, Oxygen, biological studies 7783-79-1, Selenium hexafluoride 9039-53-6, Urokinase 11075-17-5, Carboxypeptidase A 25104-18-1, Poly(L-lysine) 38000-06-5, Poly(L-lysine) 51446-62-9, Distearoylphosphatidylserine 52036-90-5, Sulfur fluoride 56124-62-0, N-Trifluoroacetyladriamycin-14-valerate 99896-85-2D, analogs 138757-15-0, α2-Antiplasmin 139612-03-6 139612-04-7 144601-95-6 158884-61-8D, reaction products with phosphatidylethanolamine derivs. 194554-71-7, Tissue factor inhibitor 234096-62-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of diagnostic/therapeutic agents having phospholipid-based gas-filled microbubbles coupled to one or more vectors)

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l32 ibib abs hitstr hitind 1-25

L32 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:231050 HCAPLUS Full-text
DOCUMENT NUMBER: 144:299431
TITLE: Albumin-based colloid composition having at

least one protected thiol region, methods of making, and methods of use

INVENTOR(S): Assaly, Ragheb A.; Dignam, J. David; Shapiro, Joseph I.

PATENT ASSIGNEE(S): Medical University of Ohio At Toledo, USA

SOURCE: U.S. Pat. Appl. Publ., 58 pp., Cont.-in-part of U.S. Ser. No. 985,798.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006057070	A1	20060316	US 2005-258646	200510 25
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US 20030041O5	A1	20030102	US 2002-106793	200203 26
			<--	
US 7037895	B2	20060502		
US 2005187139	A1	20050825	US 2004-985798	200411 09
			<--	
WO 2007050581	A2	20070503	WO 2006-US41432	200610 24

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:		
US 2002-106793	A2	200203 26
<--		
US 2004-985798	A2	200411 09
US 2001-279017P	P	200103 27
<--		
US 2005-258646	A	200510 25

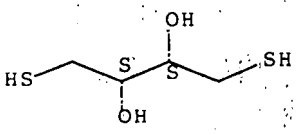
AB A composition comprising an albumin-based colloid composition having at least one protected thiol region, method of making the same, and method for use, including treating hypovolemic conditions such as capillary leak syndrome and shock, are disclosed. The composition also is modified with an indicator reagent such as chromophores. An example concerns the use of PEG-modified albumin in sepsis.

IT 3483-12-3, Dithiothreitol 760175-37-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(albumin-based colloid composition having at least one protected thiol region, methods of making, and methods of use)

RN 3483-12-3 HCAPLUS

CN 2,3-Butanediol, 1,4-dimercapto-, (2R,3R)-rel- (CA INDEX NAME)

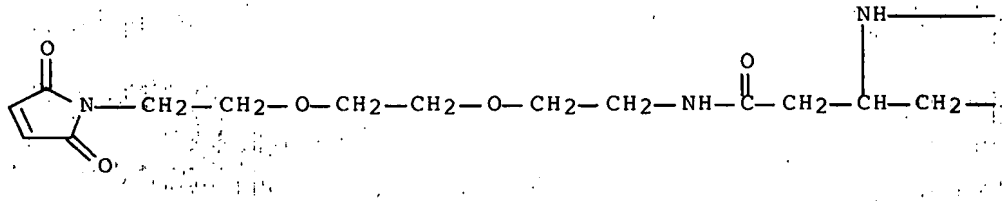
Relative stereochemistry.



RN 760175-37-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[[[3-[[2-[2-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethoxy]ethoxy]ethyl]amino]-1-[2-[[2-[2-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethoxy]ethoxy]ethyl]amino]-2-oxoethyl]-3-oxopropyl]amino]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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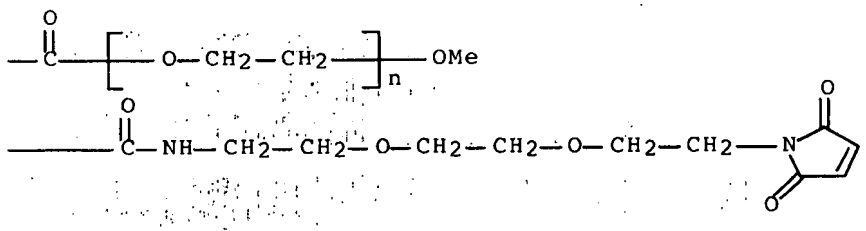

INCL 424009600; 514002000; 530363000

CC 63-6 (Pharmaceuticals)

IT Apoptosis
Burn
Drug delivery systems

Dyes
Hypoxia, animal
Oxidative stress, biological
Sepsis
Shock (circulatory collapse)
Surgery
(albumin-based colloid composition having at least one protected thiol region, methods of making, and methods of use)

IT Albumins, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(deficiency; albumin-based colloid composition having at least one protected thiol region, methods of making, and methods of use)

IT Albumins, biological studies
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(human; albumin-based colloid composition having at least one protected thiol region, methods of making, and methods of use)

IT Albumins, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hypoalbuminemia; albumin-based colloid composition having at least one protected thiol region, methods of making, and methods of use)

IT 3483-12-3, Dithiothreitol 9004-74-4, Methoxy polyethylene glycol 63368-54-7, 5-Iodoacetamidofluorescein 144512-87-8, Tetramethylrhodamine-5-iodoacetamide 174569-25-6 187848-51-7 292170-95-7 533881-65-1 760175-37-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(albumin-based colloid composition having at least one protected thiol region, methods of making, and methods of use)

L32 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:37101 HCAPLUS Full-text
DOCUMENT NUMBER: 144:129719
TITLE: Hydrolytically stable maleimide-terminated polymers
INVENTOR(S): Kozlowski, Antoni; Gross, Remy F., III; McManus, Samuel P.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Ser. No. 751,274.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006009590	A1	20060112	US 2005-91024 <--	200503 25
US 2004204548	A1	20041014	US 2003-751274 <--	200312 31
PRIORITY APPLN. INFO.:			US 2002-437211P P	200212 31

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US 2003-751274 A2
200312
31

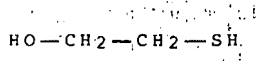
OTHER SOURCE(S): MARPAT 144:129719

AB The present invention is directed to hydrolytically stabilized maleimide-functionalized water soluble polymers (e.g., polyethylene glycol derivs.) and to methods for making and utilizing such polymers and their precursors.

IT **60-24-2DP**, 2-Mercaptoethanol, conjugate with maleimide-containing polymers **724721-96-4P** **724722-20-7DP**, conjugate with 2-mercaptoethanol **724722-20-7P** **724722-27-4P** **724722-47-8DP**, conjugate with 2-mercaptoethanol **724722-47-8P** **724722-58-1DP**, conjugate with 2-mercaptoethanol **724722-58-1P** **724722-68-3DP**, conjugate with 2-mercaptoethanol **724722-75-2DP**, conjugate with 2-mercaptoethanol **724722-75-2P** **873292-89-8P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(hydrolytically stable maleimide-terminated polymers)

RN 60-24-2 HCAPLUS

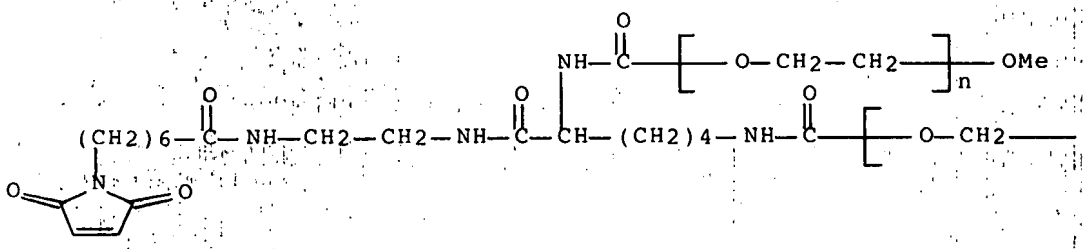
CN Ethanol, 2-mercapto- (CA INDEX NAME)



RN 724721-96-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α'-[[(1S)-1-[[[2-[[7-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxoheptyl]amino]ethyl]amino]carbonyl]-1,5-pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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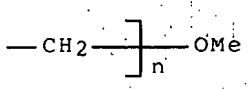
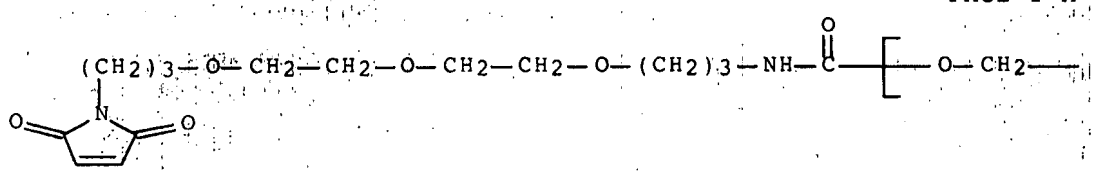


RN 724722-20-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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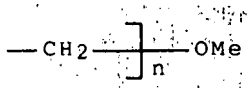
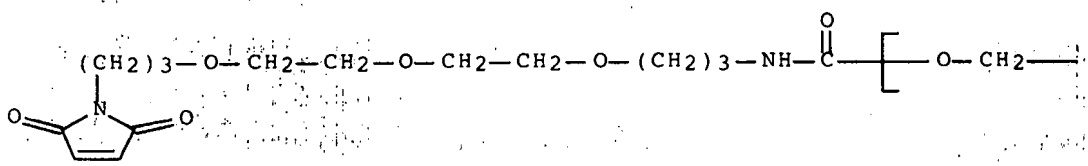


RN 724722-20-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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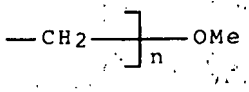
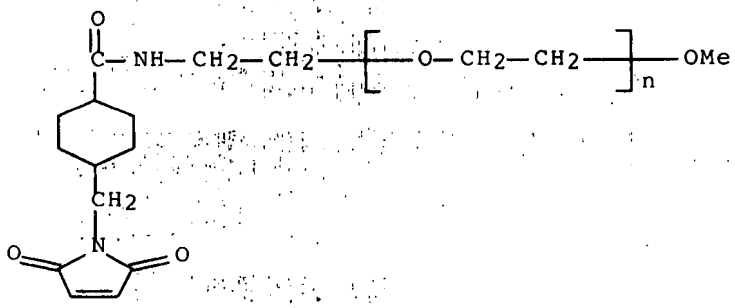
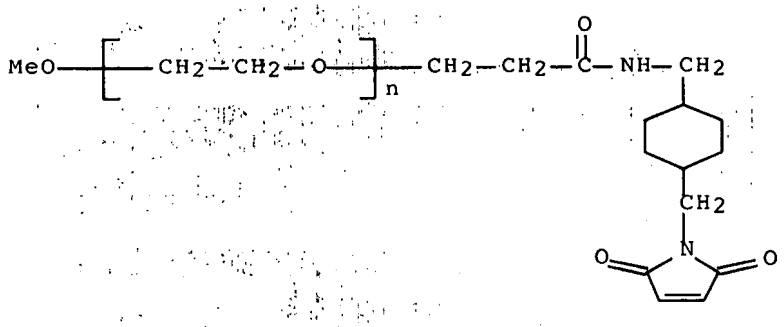


RN 724722-27-4 HCAPLUS

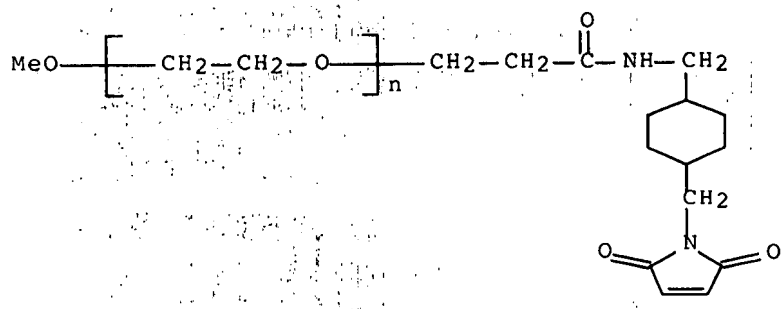
CN Poly(oxy-1,2-ethanediyl), α-[2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



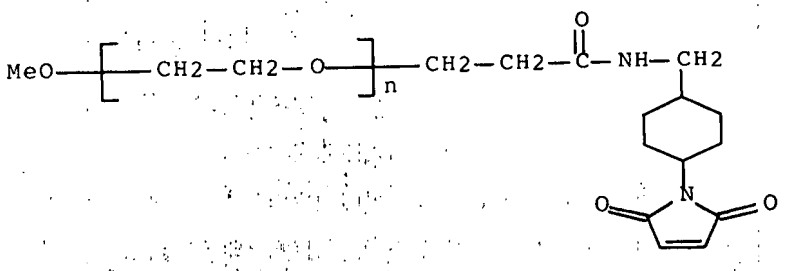
RN 724722-47-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



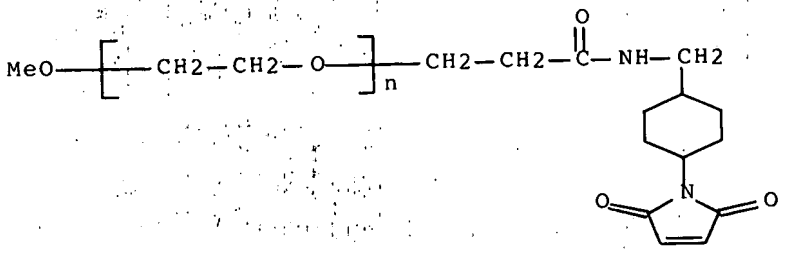
RN 724722-47-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



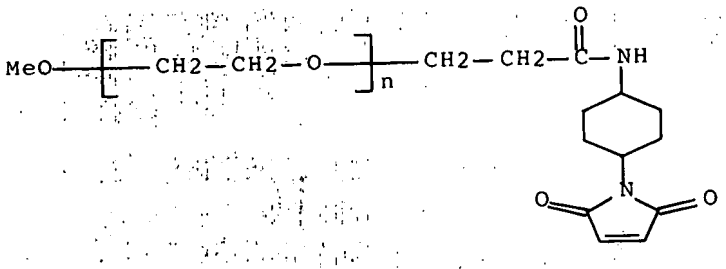
RN 724722-58-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



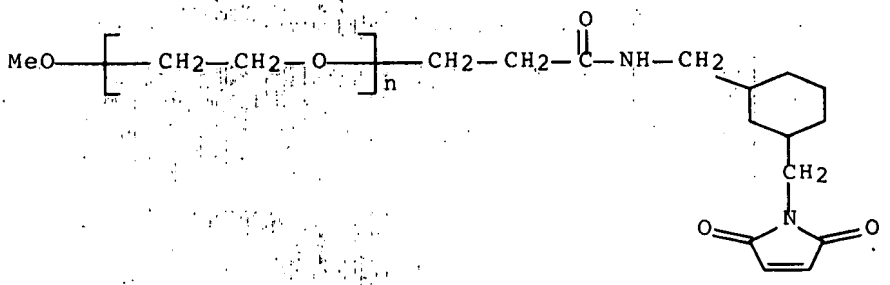
RN 724722-58-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



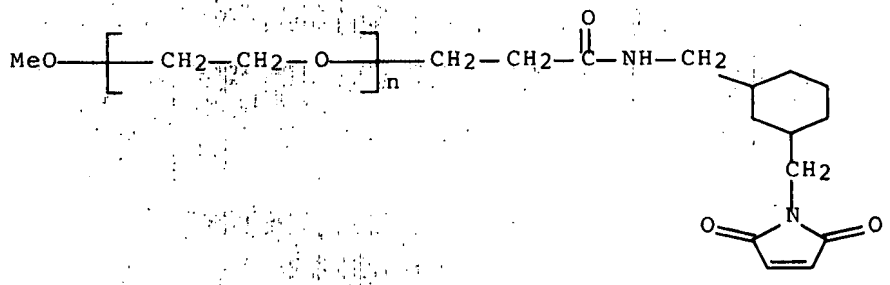
RN 724722-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 724722-75-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)

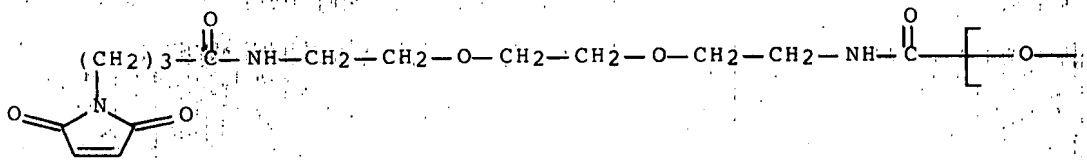


RN 724722-75-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 873292-89-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1,12-dioxo-5,8-dioxa-2,11-diazapentadec-1-yl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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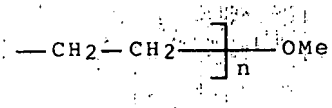

IC INCL 525374000; 525056000
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 6
IT 60-24-2DP, 2-Mercaptoethanol, conjugate with

maleimide-containing polymers 724721-96-4P 724722-06-9P
724722-12-7P 724722-20-7DP, conjugate with
2-mercaptoethanol 724722-20-7P 724722-27-4P
724722-44-5P 724722-47-8DP, conjugate with
2-mercaptoethanol 724722-47-8P 724722-58-1DP,
conjugate with 2-mercaptoethanol 724722-58-1P
724722-68-3DP, conjugate with 2-mercaptoethanol
724722-75-2DP, conjugate with 2-mercaptoethanol
724722-75-2P 873292-89-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(hydrolytically stable maleimide-terminated polymers)

L32 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:985312 HCAPLUS Full-text
DOCUMENT NUMBER: 143:292535
TITLE: Releasable polymeric drug conjugates based on biodegradable linkers
INVENTOR(S): Zhao, Hong; Greenwald, Richard B.; Adler, Susan
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of U.S. Ser. No. 449,849.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005197290	A1	20050908	US 2004-11818	200412 14
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US 2004037802	A1	20040226	US 2002-218167	200208 13
			<--	
US 7122189	B2	20061017		
US 2005003448	A1	20050106	US 2003-449849	200305 30
US 7087229	B2	20060808		
WO 2006066020	A2	20060622	WO 2005-US45467	200512 13
WO 2006066020	A3	20060810		

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2002-218167 A2

200208
13

<-- US 2003-449849 A2 200305
30

US 2004-11818 A 200412
14

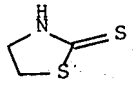
OTHER SOURCE(S): MARPAT 143:292535

AB Disclosure is activated polymeric bicine derivs., as well as conjugates made therewith. Methods of making and using the bicine derivs. are also disclosed. For example, antitumor prodrugs of PEG conjugated with doxorubicin through amide linker was prepared

IT 96-53-7, 2-Mercaptothiazoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(releasable polymeric conjugates based on biodegradable linkers)

RN 96-53-7 HCAPLUS

CN 2-Thiazolidinethione (CA INDEX NAME)

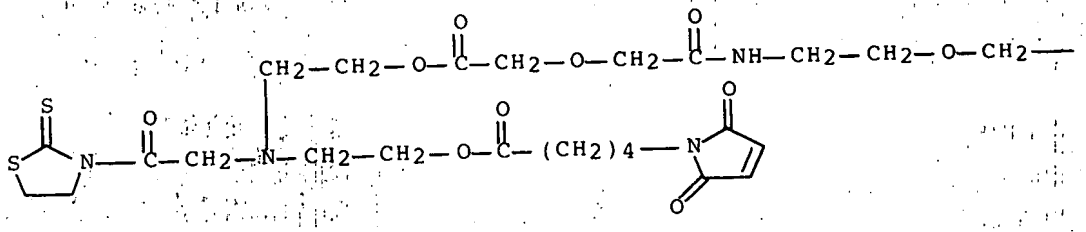


IT 864159-23-9 864159-24-0
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(releasable polymeric conjugates based on biodegradable linkers)

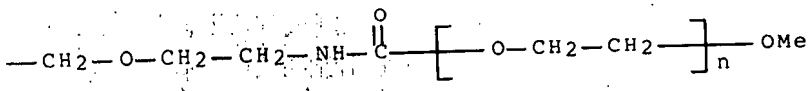
RN 864159-23-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[28-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1,12,16,24-tetraoxo-20-[2-oxo-2-(2-thioxo-3-thiazolidinyl)ethyl]-5,8,14,17,23-pentaoxa-2,11,20-triazaoctacos-1-yl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



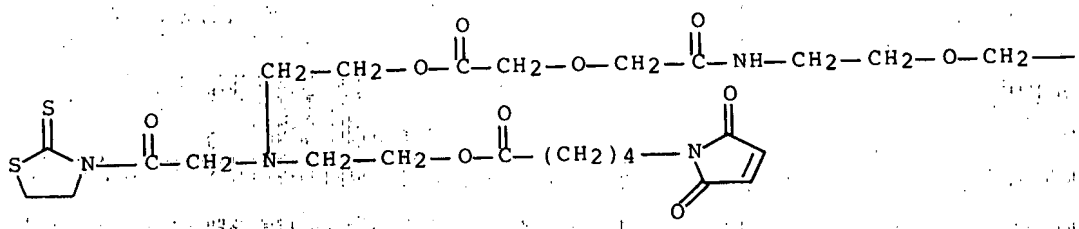
PAGE 1-B



RN 864159-24-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[28-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1,12,16,24-tetraoxo-20-[2-oxo-2-(2-thioxo-3-thiazolidinyl)ethyl]-5,8,14,17,23-pentaoxa-11,20-triazaoctacos-1-yl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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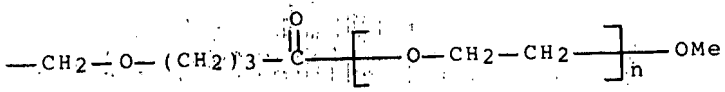

IC ICM A61K038-17
ICS C07H015-24; A61K031-325
INCL 514012000; 514483000; 560159000; 514034000; 530409000; 536006400
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 21, 35
IT 75-36-5, Acetyl chloride 96-53-7, 2-Mercaptothiazoline 619-60-3, DMAP 4480-83-5, 1,4-Dioxane-2,6-dione 7087-68-5, Diisopropylethyl amine 9001-63-2, Lysozyme 23214-92-8, Doxorubicin 25322-68-3, PEG 42503-45-7 153086-78-3 864159-13-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(releasable polymeric conjugates based on biodegradable linkers)
IT 62304-98-7D, Thymosin α1 (cattle), polyoxyethylenated conjugate derivs. 864159-19-3 864159-20-6 864159-21-7 864159-22-8 864159-23-9 864159-24-0 864159-25-1D, peptide conjugate derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(releasable polymeric conjugates based on biodegradable linkers)

L32 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:964831 HCAPLUS Full-text
DOCUMENT NUMBER: 141:410944
TITLE: Preparation of piperidinyl targeting compounds that selectively bind integrins
INVENTOR(S): De Corte. Bart; Kinney, William A.; Maryanoff, Bruce E.; Ghosh, Shyamali; Liu, Li
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 160 pp., Cont.-in-part of U.S. Ser. No. 641,964.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004224986	A1	20041111	US 2004-782060	200402 18
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US 2004077684	A1	20040422	US 2003-641964	200308 15
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AU 2004316476	A1	20050909	AU 2004-316476	200403 29
CA 2556768	A1	20050909	CA 2004-2556768	200403 29
WO 2005082889	A1	20050909	WO 2004-US9465	200403 29
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1718635	A1	20061108	EP 2004-749482	200403 29
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IN 2006KN02400	A	20070525	IN 2006-KN2400	200608 24
NO 2006004212	A	20061115	NO 2006-4212	200609 18
PRIORITY APPLN. INFO.:			US 2002-404239P P	200208 16
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OTHER SOURCE(S): MARPAT 141:410944

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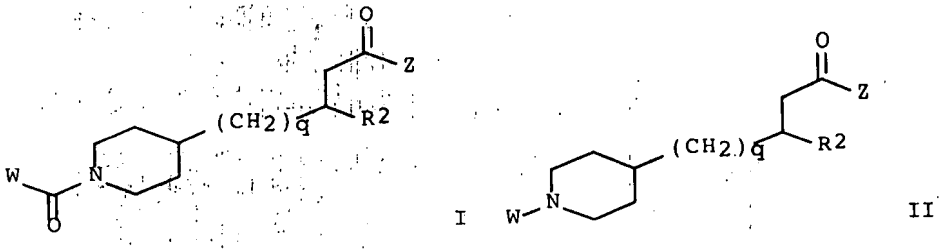


I II

AB The present invention relates to the synthesis and biol. application of piperidinoyl carboxylic acid integrin antagonists affinity moiety of formula (I) and formula (II) [W = -C0-6alkyl(R1), -C1-6 alkyl(R1a), -C0-6 alkylaryl(R1,R8), -C0-6 alkylheterocyclyl(R1,R8), etc.; R1 = H, (un)substituted NH2, -heterocyclyl-(R8), -heteroaryl-(R8); R1a = -C(R4)(:NR4), -C(:NR4)-N(R4)2, -C(:NR4)-N(R4)(R6), -C(:N-R4)-N(R4)-C(O)-R4, etc.; R4 = H, C1-8 alkyl; R8 = H, -C1-8 alkyl(R9), -CHO, -CO-C1-8 alkyl(R9), -CONH2, etc.; R9 = H, C1-8 alkoxy, each (un)substituted NH2, CONH2, or SO2NH2, CHO, etc.; q = 0-3; R2 = -C1-8 alkyl(R7)(R11), -C2-8 alkenyl(R7)(R11), -C2-8 alkynyl(R7)(R11), -cycloalkyl-(R7)(R11), -heterocyclyl-(R8)(R12), etc.; R7 = H, -C1-8 alkoxy(R9), each (un)substituted NH2 or CONH2, CHO, -CO-C1-8 alkyl(R9), etc.; R11 = -C1-8 alkyl(R14), -O-C1-8 alkyl(R14), -NH-C1-8 alkyl(R14), -S-C1-8 alkyl(R14), etc.; R12 = -C1-8 alkyl(R14), -O-C1-8 alkyl(R14), -NH-C1-8 alkyl(R14), etc.; R14 when R11 and R12 terminates with a C(:O) is selected from the group consisting of H, OH, -OC1-4 alkyl, and NH2; otherwise R14 = OH, SH, CO2H , CO2-1-4 alkyl; Z = OH, (un)substituted NH2, -O-C1-8 alkyl, O-C1-8 alkyl-OH, -O-C1-8 alkyl-C1-8 alkoxy, etc.] and pharmaceutically acceptable salts, racemic mixts., and enantiomers thereof. These affinity moieties maybe used with imaging agents or liposomes to target cells that express the αvβ3, αvβ5, or αvβ6 integrin receptors. For example, an enantiomer of 6-methoxy-β-[[1-[1-oxo-3-(5,6,7,8- tetrahydro-1,8-naphthyridin-2-yl)propyl]-4-piperidinyl]methyl]-3-pyridinepropanoic acid inhibited the binding of vitronectin to αvβ3, αvβ5, and αIIbβ3 receptors with IC50 of 0.0003±0.00002, 0.0042±0.0018, and 1.83±0.57 μM, resp.

IT 791821-41-5P

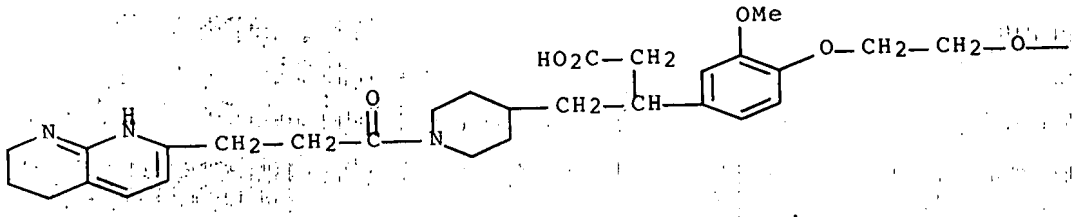
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)

RN 791821-41-5 HCAPLUS

CN 4-Piperidinebutanoic acid, β-[4-[2-[2-(2-mercaptoethoxy)ethoxy]ethoxy]-3-methoxyphenyl]-1-[1-oxo-3-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-yl)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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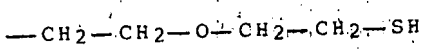
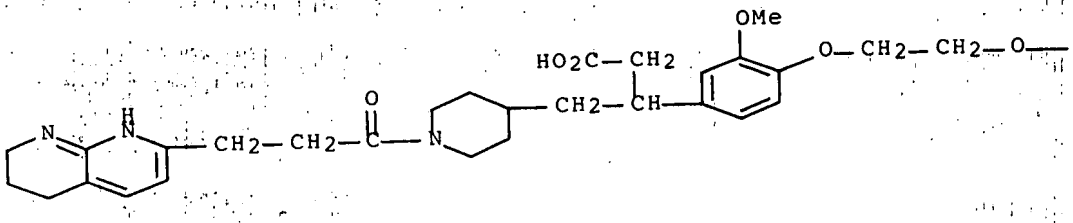


IT 791821-38-0P 791821-43-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)

RN 791821-38-0 HCAPLUS
CN 4-Piperidinebutanoic acid, β-[4-[2-(2-mercaptoethoxy)ethoxy]-3-methoxyphenyl]-1-[1-oxo-3-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-yl)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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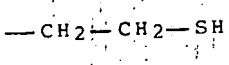
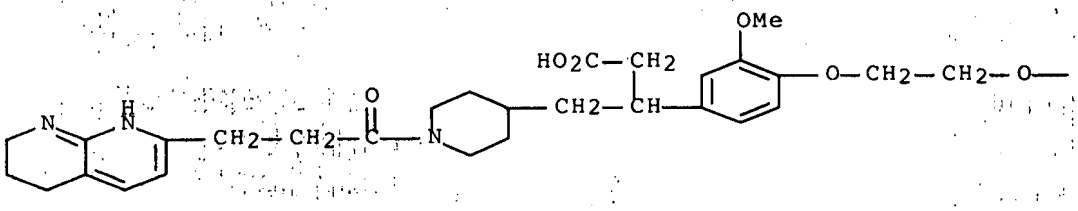


RN 791821-43-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[3-[[2-[2-[2-[4-[1-(carboxymethyl)-2-[1-[1-oxo-3-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-yl)propyl]-4-piperidinyl]ethyl]-2-methoxyphenoxy]ethoxy]ethoxy]ethyl]thio]-2,5-dioxo-1-pyrrolidinyl]ethyl]-ω-[[7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxooctadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphatriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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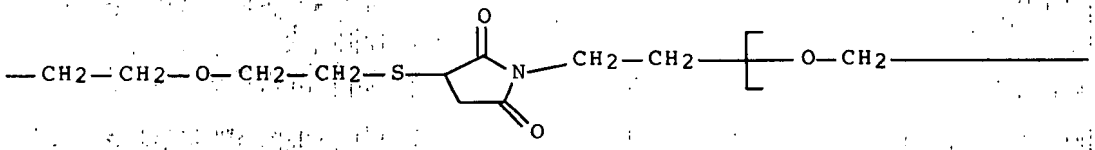

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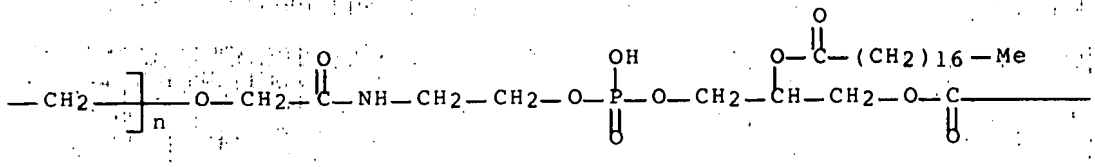

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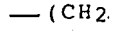
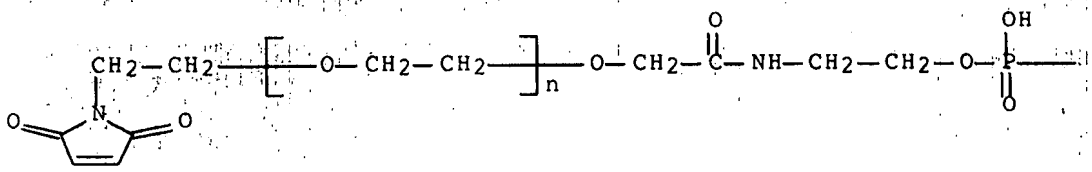


IT 791821-42-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)

RN 791821-42-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-ω-[[7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxooctadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphatriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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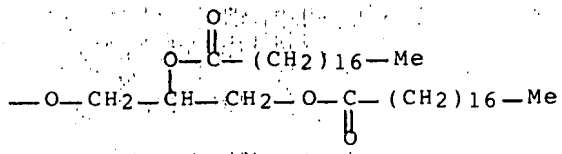
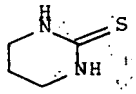


IT 2055-46-1, 3,4,5,6-Tetrahydro-2-pyrimidinethiol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)
RN 2055-46-1 HCAPLUS
CN 2(1H)-Pyrimidinethione, tetrahydro- (CA INDEX NAME)



IC ICM A61K031-454
ICS C07D041-02
INCL 514326000; 546207000; 546227000
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 6
IT Biological transport
(intracellular; preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)
IT 669076-37-3P 791821-34-6P 791821-35-7P 791821-41-5P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)
IT 669074-85-5P 669074-97-9P 669075-00-7P 669075-01-8P
669075-02-9P 669075-03-0P 669075-04-1P 669075-10-9P
669075-11-0P 669075-12-1P 669075-17-6P 669075-19-8P
669075-21-2P 669075-22-3P 669075-24-5P 669075-27-8P

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669075-38-1P 669075-39-2P 669075-41-6P 669075-48-3P
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669075-57-4P 669075-58-5P 669075-59-6P 669075-60-9P
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791821-43-7P 791821-44-8P 791821-45-9P 792931-34-1P
792931-35-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)

IT 75-65-0, tert-Butanol, reactions 99-05-8, 3-Aminobenzoic acid 112-26-5, 1,2-Bis(2-chloroethoxy)ethane 127-08-2, Potassium acetate 504-29-0, 2-Aminopyridine 622-26-4, 4-(2-Hydroxyethyl)piperidine 626-55-1, 3-Bromopyridine 927-58-2, 4-Bromobutyryl chloride 1066-54-2, Trimethylsilylacetylene 2635-13-4, 3,4-Methylenedioxyphenyl bromide 5414-19-7, Bis(2-bromoethyl) ether 37517-81-0, Methyl 3-chloro-3-oxopropionate 84358-13-4, 1-tert-Butoxycarbonylpiperidine-4-carboxylic acid 157688-46-5 332884-21-6 658712-81-3 669075-32-5 669076-66-8 791821-31-3 791821-42-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3, αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)

IT 74-88-4, Methyl iodide, reactions 75-15-0, Carbon disulfide, reactions 98-80-6, Phenylboronic acid 580-13-2, 2-Bromonaphthalene 591-19-5, 3-Bromoaniline 616-29-5, 1,3-Diamino-2-hydroxypropane 1073-06-9, 1-Bromo-3-fluorobenzene 1099-45-2, Carbethoxymethylenetriphenylphosphorane 1435-52-5, 1,4-Dibromo-2-fluorobenzene 1664-54-6, 3-(3-Aminophenyl)propionic acid 2055-46-1, 3,4,5,6-Tetrahydro-2-pyrimidinethiol 2537-48-6, Diethyl cyanomethylphosphonate 5332-24-1, 3-Bromoquinoline 5927-18-4, Trimethyl phosphonoacetate 6457-49-4, 4-Piperidinemethanol 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 7368-78-7, 4-Bromo-2-methoxyphenol 14338-36-4, 3-Aminophenylacetic acid 18997-19-8, Chloromethyl pivalate 24424-99-5, Di-tert-butyl dicarbonate 76513-69-4, [2-(Trimethylsilyl)ethoxy]methyl chloride 154775-43-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of piperidinealkanoic acids as cell targeting compds. with selective affinity to αvβ3,

αvβ5, or αvβ6 integrin receptors for use with imaging agents or liposomes)

L32 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:964698 HCAPLUS Full-text
DOCUMENT NUMBER: 141:391534
TITLE: Three-dimensional solid phase extraction surfaces
INVENTOR(S): Gjerde, Douglas T.; Hanna, Christopher T.; Nguyen, Liem; Yengoyan, Leon S.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 434,713.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 7122640	B2	20061017		
WO 2004100887	A2	20041125	WO 2004-US14321	20040506
WO 2004100887	A3	20050519		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
WO 2005015153	A2	20050217	WO 2004-US14458	20040506
WO 2005015153	A3	20051229		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,			

VC, VN, YU, ZA, ZM, ZW
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US 2005106585	A1	20050519	US 2004-866283	200406 09
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US 7151167	B2	20061219		
US 2006199945	A1	20060907	US 2006-361128	200602 24

PRIORITY APPLN. INFO.:

US 2003-434713	A2	200305 08
US 2003-523518P	P	200311 18
US 2002-388120P	P	200206 10
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US 2002-419136P	P	200210 16
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US 2003-733534	A2	200312 10
US 2003-733664	A	200312 10
US 2003-733685	A	200312 10
US 2004-754775	A2	200401 08
US 2004-792975	A	200403 04
US 2004-793449	A	200403

04

US 2005-658553P P

200503
03

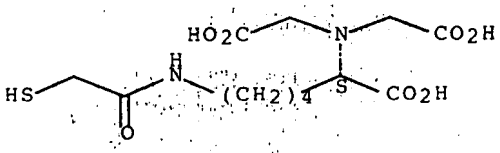
AB The subject invention provides extraction capillaries, wherein a substantial portion of the channel is coated with a 3-dimensional solid phase extraction surface that binds an analyte. In some embodiments the extraction matrix comprises a polymer backbone with an extraction agent bound thereto. Analytes of particular relevance include biomols., such as proteins, polynucleotides, lipids and polysaccharides. The invention further provides devices comprising the extraction capillaries, reagents for use in conjunction with the capillaries and devices, and methods for the production and use of the capillaries and devices.

IT 759435-93-3P 790661-49-3P
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(three-dimensional solid phase extraction surfaces)

RN 759435-93-3 HCAPLUS

CN L-Lysine, N2,N2-bis(carboxymethyl)-N6-(mercaptoacetyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 790661-49-3 HCAPLUS

CN Dextran, 2-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-2-oxoethyl ether (9CI) (CA INDEX NAME)

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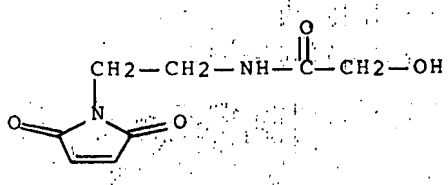
CRN 790661-48-2
CMF C8 H10 N2 O4



CM 2

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C12Q001-68

ICS C12M001-34
INCL 435006000; 435287200
CC 9-9 (Biochemical Methods)
IT 77-77-0DP, Divinyl sulfone, reaction products with dextran
9004-54-0DP, Dextran, reaction products with divinyl sulfone
9044-05-7P 13822-56-5P 759435-93-3P 790661-49-3P
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(three-dimensional solid phase extraction surfaces)

L32 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:589589 HCAPLUS Full-text
DOCUMENT NUMBER: 141:140952
TITLE: Maleamic acid polymer derivatives and their succinamic acid polymer bioconjugates
INVENTOR(S): Kozlowski, Antoni; Gross, Remy F., III; McManus, Samuel P.
PATENT ASSIGNEE(S): Nektar Therapeutics Al, Corporation, USA
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004060966	A2	20040722	WO 2003-US41705	200312 31
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WO 2004060966	A3	20040916		
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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AU 2003300139	A1	20040729	AU 2003-300139	200312 31
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US 2004167287	A1	20040826	US 2003-750996	200312 31
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EP 1578841	A2	20050928	EP 2003-800397	200312 31

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CN 1732207	A	20060208	CN 2003-80108082		200312 31
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JP 2006522167	T	20060928	JP 2005-508648		200312 31
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IN 2005DN02712	A	20070420	IN 2005-DN2712		200506 20
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PRIORITY APPLN. INFO.:			US 2002-437251P	P	200212 31
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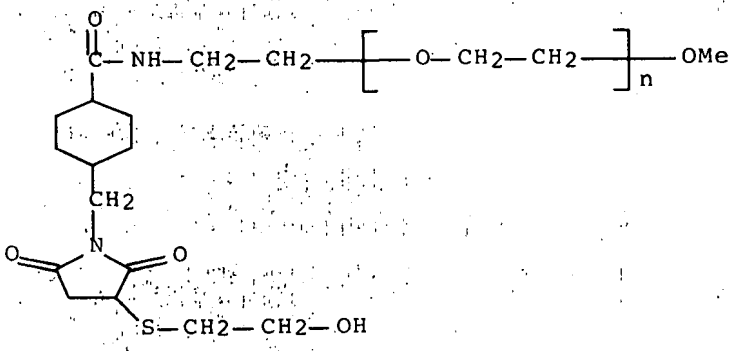
			US 2003-468340P	P	200305 05
			WO 2003-US41705	W	200312 31

AB Michael-type addition reaction conjugates of maleimide derivs. of water-soluble polymers are subjected to conditions to open the succinimide ring to give succinamic acid polymer conjugates with improved resistance to hydrolysis and stability during storage.

IT 725274-00-0
RL: PRP (Properties)
(hydrolysis properties of Michael-type addition reaction-prepared products of N-bonded polyethylene glycol derivs. of maleimide)

RN 725274-00-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[[[4-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]carbonyl]amino]ethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



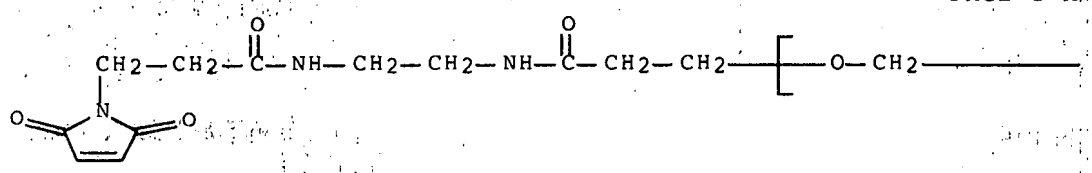
IT 725273-96-1D, reaction products with proteins
RL: PRP (Properties)
(hydrolysis rates of Michael-type addition reaction-prepared protein

conjugates of N-bonded polyethylene glycol derivs. of maleimide)

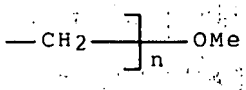
RN 725273-96-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 322725-90-6 724722-27-4

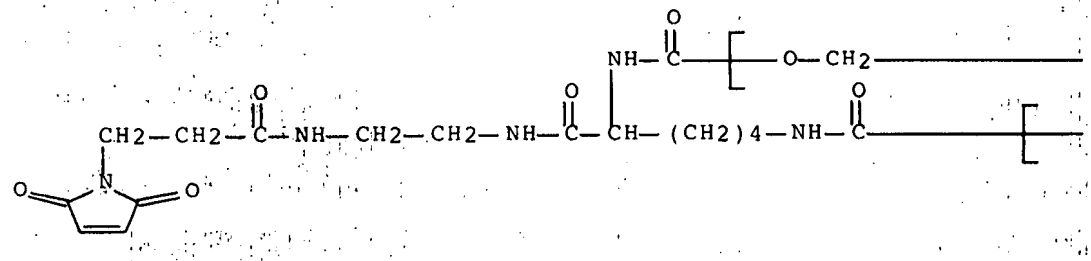
RL: PRP (Properties)

(hydrolysis rates of N-bonded polyethylene glycol derivs. of maleimide)

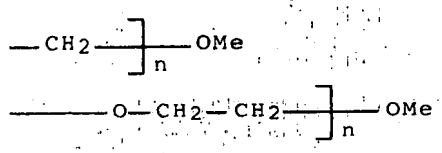
RN 322725-90-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α'-[[(1S)-1-[[[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]carbonyl]-1,5-pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (CA INDEX NAME)

PAGE 1-A

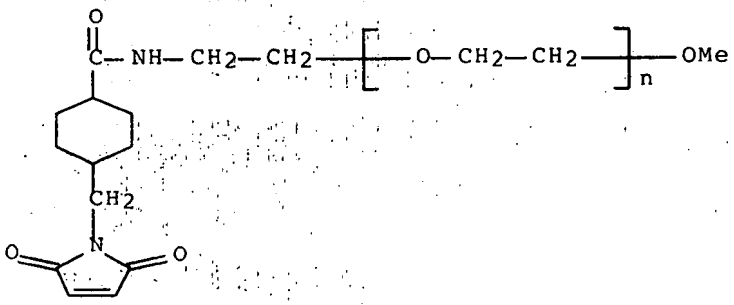


PAGE 1-B

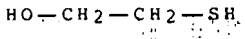


RN 724722-27-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



IT 60-24-2, 2-Mercaptoethanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; manufacture and hydrolysis properties of Michael-type addition reaction-prepared products of N-bonded polyethylene glycol derivs. of maleimide)
RN 60-24-2 HCAPLUS
CN Ethanol, 2-mercapto- (CA INDEX NAME)



IC ICM C08G065-00
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 6, 34
IT 724722-33-2 724722-36-5 725274-00-0
RL: PRP (Properties)
(hydrolysis properties of Michael-type addition reaction-prepared products of N-bonded polyethylene glycol derivs. of maleimide)
IT 99126-64-4D, reaction products with proteins 725273-96-1D, reaction products with proteins
RL: PRP (Properties)
(hydrolysis rates of Michael-type addition reaction-prepared protein conjugates of N-bonded polyethylene glycol derivs. of maleimide)
IT 99126-64-4 322725-90-6 724722-27-4 724722-92-3 724723-02-8 725273-90-5 725273-91-6 725273-92-7
RL: PRP (Properties)
(hydrolysis rates of N-bonded polyethylene glycol derivs. of maleimide)
IT 60-24-2, 2-Mercaptoethanol 292170-95-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; manufacture and hydrolysis properties of Michael-type addition reaction-prepared products of N-bonded polyethylene glycol derivs. of maleimide)

L32 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:589588 HCAPLUS Full-text
DOCUMENT NUMBER: 141:140951
TITLE: Hydrolytically stable maleimide-terminated polymers and their preparation

INVENTOR(S): Kozlowski, Antoni; Gross, Remy F., III; McManus, Samuel P.
PATENT ASSIGNEE(S): Nektar Therapeutics Al, Corporation, USA
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004060965	A2	20040722	WO 2003-US41699	200312 31
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WO 2004060965	A3	20041007		
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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EP 1578842	A2	20050928	EP 2003-800391	200312 31
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JP 2006512445	T	20060413	JP 2004-564914	200312 31
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200312
31

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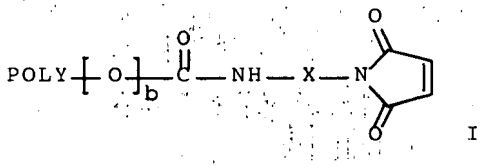


I

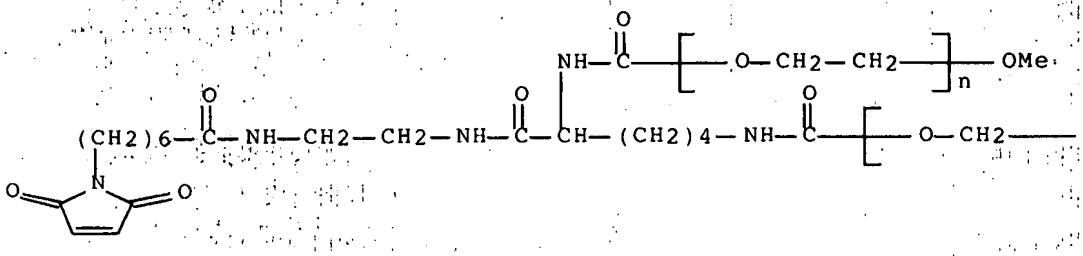
AB The hydrolytically stabilized maleimide-functionalized water-soluble polymer I (POLY = water-soluble polymer segment; b = 0, 1; X = a hydrolytically stable linker containing ≥3 contiguous saturated carbon atom) is absent aromatic groups and ester linkages.

IT 724721-96-4P 724722-30-9P 724722-47-8P
724722-58-1P 724722-68-3P 724722-77-4P
724722-80-9P 724722-83-2P 724722-86-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of hydrolytically stable maleimide-terminated polymers)

RN 724721-96-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α'-[[(1S)-1-[[[2-[[7-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxoheptyl]amino]ethyl]amino]carbonyl]-1,5-pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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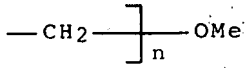
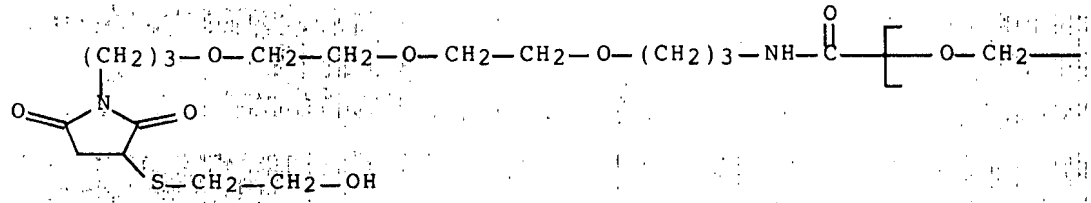


RN 724722-30-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[15-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]-

ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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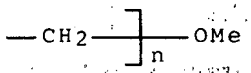
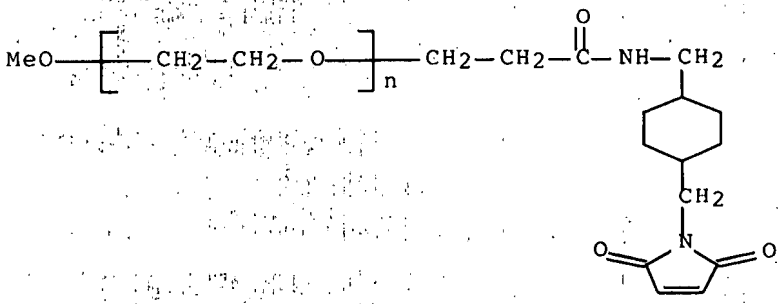


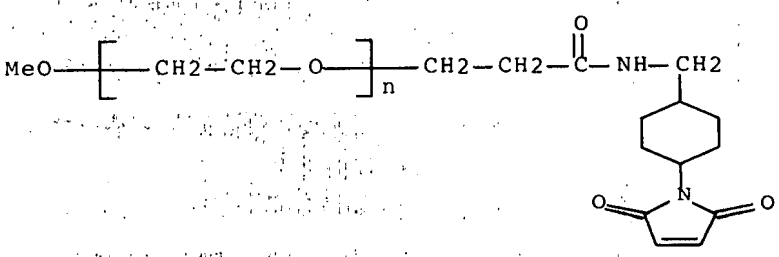
RN 724722-47-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



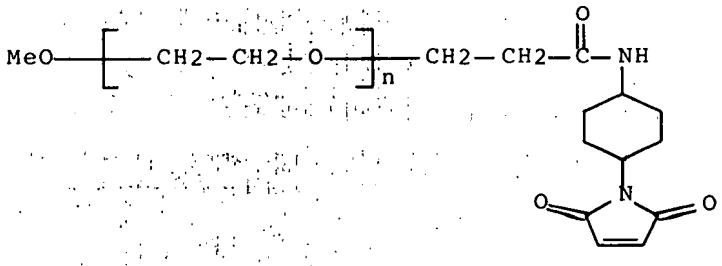
RN 724722-58-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



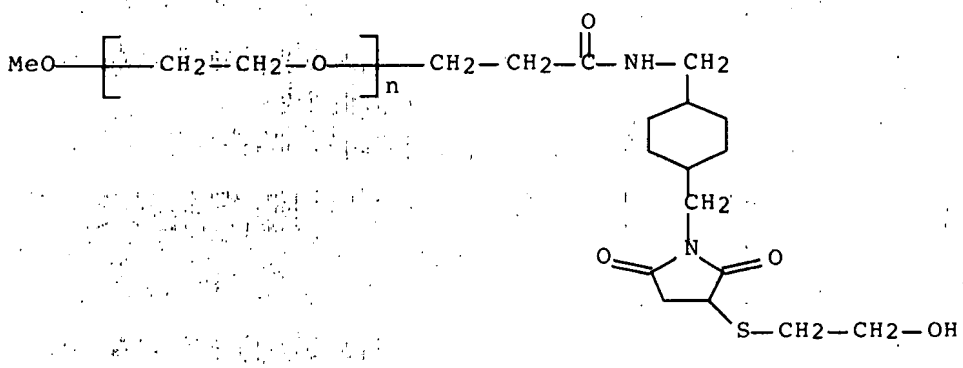
RN 724722-68-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[(trans)-4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)cyclohexyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



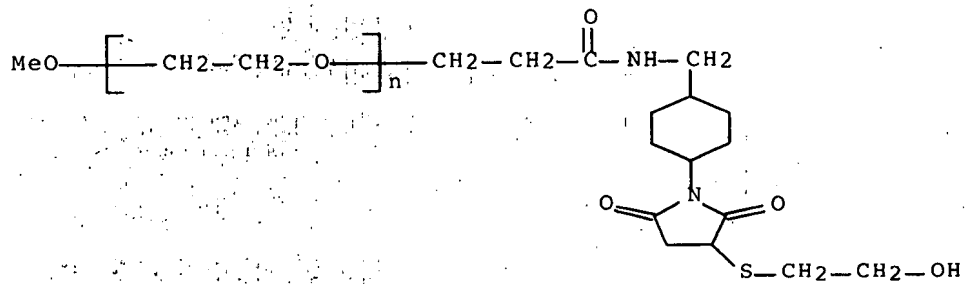
RN 724722-77-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[[4-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



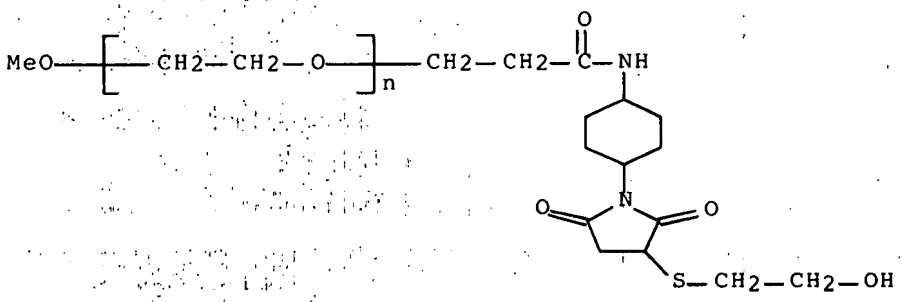
RN 724722-80-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



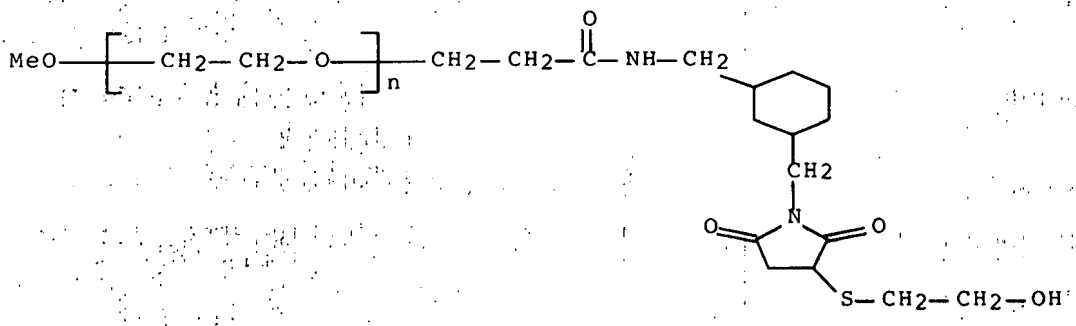
RN 724722-83-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[3-[[(trans)-4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 724722-86-5 HCAPLUS

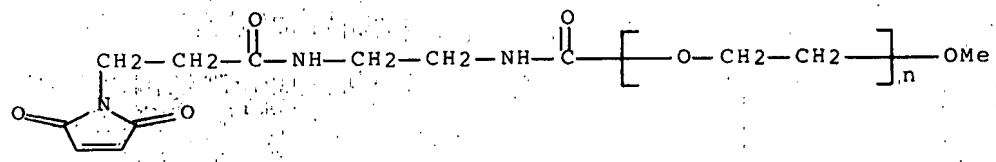
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[3-[[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



IT 724723-05-1DP, mercapto protein derivs.
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of hydrolytically stable maleimide-terminated polymers)

RN 724723-05-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[[[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]carbonyl]-ω-methoxy- (9CI) (CA INDEX NAME)



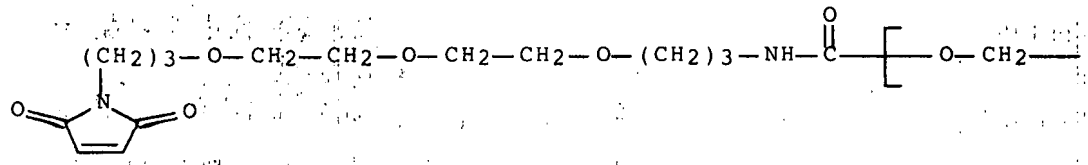
IT 724722-20-7P 724722-27-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)
(preparation of hydrolytically stable maleimide-terminated polymers)

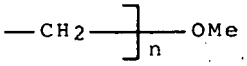
RN 724722-20-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[15-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxo-6,9,12-trioxa-2-azapentadec-1-yl]-ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A

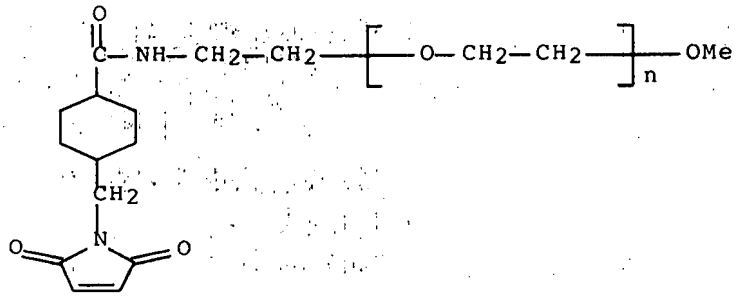


PAGE 1-B



RN 724722-27-4 HCAPLUS

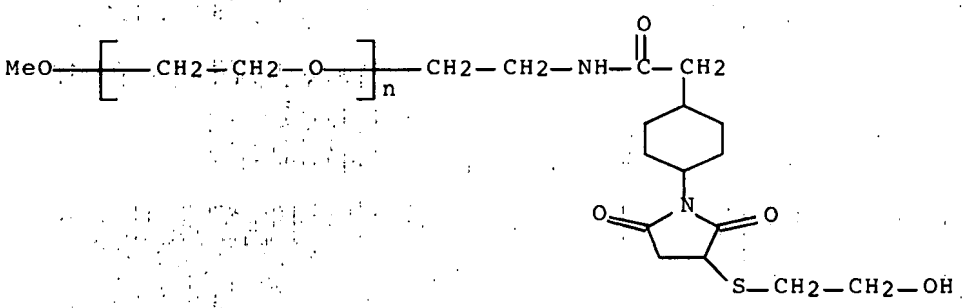
CN Poly(oxy-1,2-ethanediyl), α-[2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



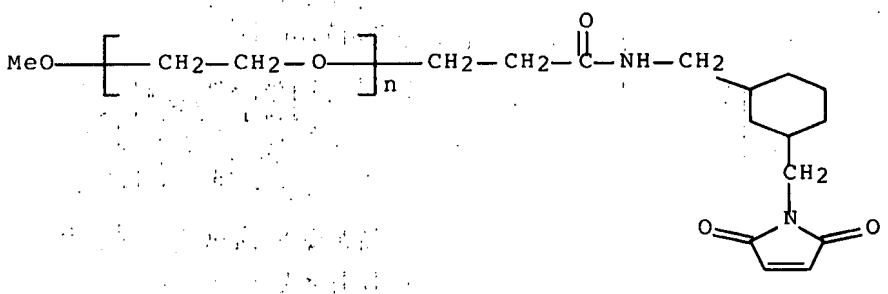
IT 724722-38-7
RL: PRP (Properties)
(preparation of hydrolytically stable maleimide-terminated polymers)

RN 724722-38-7 HCAPLUS

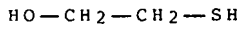
CN Poly(oxy-1,2-ethanediyl), α-[2-[[[4-[3-[(2-hydroxyethyl)thio]-2,5-dioxo-1-pyrrolidinyl]cyclohexyl]acetyl]amino]ethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



IT 724722-75-2
RL: TEM (Technical or engineered material use); USES (Uses)
(preparation of hydrolytically stable maleimide-terminated polymers)
RN 724722-75-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[[[3-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]methyl]amino]-3-oxopropyl]-ω-methoxy- (9CI) (CA INDEX NAME)



IT 60-24-2, 2-Mercaptoethanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of hydrolytically stable maleimide-terminated polymers)
RN 60-24-2 HCAPLUS
CN Ethanol, 2-mercapto- (CA INDEX NAME)



IC ICM C08G065-00
CC 35-8 (Chemistry of Synthetic High Polymers)
IT 724721-96-4P 724722-06-9P 724722-12-7P
724722-30-9P 724722-47-8P 724722-58-1P
724722-68-3P 724722-77-4P 724722-80-9P
724722-83-2P 724722-86-5P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of hydrolytically stable maleimide-terminated polymers)
IT 99126-64-4DP, mercapto protein derivs. 724723-05-1DP, mercapto protein derivs.
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(preparation of hydrolytically stable maleimide-terminated polymers)
IT 664348-92-9P 664350-10-1P 724722-10-5P 724722-17-2P
724722-20-7P 724722-27-4P 724722-44-5P
724722-53-6P 724722-56-9P 724722-63-8P 724722-65-0P
724722-72-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of hydrolytically stable maleimide-terminated polymers)
IT 99126-64-4 724722-33-2 724722-36-5 724722-38-7
724722-89-8 724722-92-3 724723-02-8
RL: PRP (Properties)
(preparation of hydrolytically stable maleimide-terminated polymers)
IT 724722-75-2
RL: TEM (Technical or engineered material use); USES (Uses)
(preparation of hydrolytically stable maleimide-terminated polymers)
IT 60-24-2, 2-Mercaptoethanol 76-05-1, Trifluoroacetic acid, reactions 107-15-3, 1,2-Ethanediamine, reactions 110-52-1 629-03-8 2549-93-1, 1,4-Cyclohexane(bismethylamine) 2579-20-6, 1,3-Cyclohexanedimethanamine 4246-51-9 9004-74-4 55750-48-6 64987-85-5 80506-64-5 159540-80-4 177583-27-6 266313-95-5 724721-93-1 724722-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of hydrolytically stable maleimide-terminated polymers)

L32 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:142994 HCAPLUS Full-text
DOCUMENT NUMBER: 140:205131
TITLE: Releasable polymeric conjugates based on aliphatic biodegradable linkers
INVENTOR(S): Zhao, Hong; Greenwald, Richard B.; Pendri, Annapurna
PATENT ASSIGNEE(S): Enzon, Inc., USA
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014424	A1	20040219	WO 2003-US25252	200308 13
			<--	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004037802	A1	20040226	US 2002-218167	

				200208 13 <--
US 7122189	B2	20061017		
CA 2493329	A1	20040219	CA 2003-2493329	200308 13 <--
AU 2003262622	A1	20040225	AU 2003-262622	200308 13 <--
EP 1534334	A1	20050601	EP 2003-785231	200308 13 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006505634	T	20060216	JP 2004-528078	200308 13 <--
US 2006286065	A1	20061221	US 2006-502108	200608 09 <--
PRIORITY APPLN. INFO.:			US 2002-218167 A	200208 13 <--
			WO 2003-US25252 W	200308 13

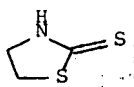
OTHER SOURCE(S): MARPAT 140:205131

AB Activated polymeric bicine derivs. such as, as well as their conjugates are disclosed. Methods of making and using the bicine derivs. as prodrugs for treatment and diagnosis are also disclosed. For example, doxorubicin and daunorubicin prodrugs containing a polyethylene glycol derivative were prepared

IT 96-53-7, 2-Mercaptothiazoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of polymeric conjugates based on aliphatic biodegradable linkers as prodrugs)

RN 96-53-7 HCAPLUS

CN 2-Thiazolidinethione (CA INDEX NAME)

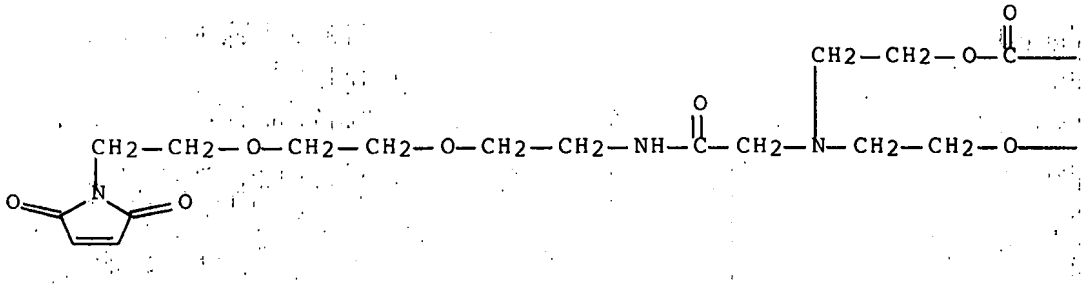


IT 660843-24-3P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of polymeric conjugates based on aliphatic biodegradable linkers as prodrugs)

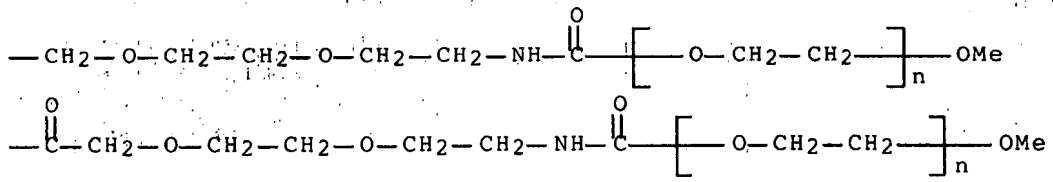
RN 660843-24-3 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α'-[14-[2-[[2-[2-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethoxy]ethoxy]ethyl]amino]-2-oxoethyl]-1,10,18,27-tetraoxo-5,8,11,17,20,23-hexaoxa-2,14,26-triazaheptacosane-1,27-diyl]bis[ω-methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM A61K039-395
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 33, 35
IT 96-53-7, 2-Mercaptothiazoline 111-42-2, reactions
929-06-6, 2-(2-Aminoethoxy)-ethanol 1142-20-7 5292-43-3
5893-05-0, N-Trityl glycine 23541-50-6, Daunorubicin hydrochloride
25316-40-9, Doxorubicin hydrochloride 39927-08-7 58885-58-8,
tert-Butyl-N-(3-hydroxypropyl)-carbamate 74124-79-1,
N,N'-Disuccinimidyl carbonate 124661-64-9 135649-01-3
153086-78-3 172502-50-0 204133-37-9 660843-10-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of polymeric conjugates based on aliphatic biodegradable linkers as prodrugs)
IT 660441-02-1P 660441-08-7P 660842-98-8P 660843-09-4P
660843-19-6P 660843-24-3P 660843-36-7P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of polymeric conjugates based on aliphatic biodegradable linkers as prodrugs)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

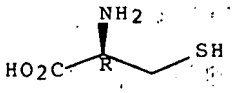
L32 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:963137 HCAPLUS Full-text
DOCUMENT NUMBER: 141:191083
TITLE: Synthesis and characterization of new optically active monomers containing imide rings
AUTHOR(S): Cianga, Luminita; Popescu, Florin

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry, Iasi, R-6600, Rom.
SOURCE: Buletinul Stiintific al Universitatii "Politehnica" din Timisoara Romania, Seria Chimie si Mediului (1999), 44(2), 125-132
CODEN: BSIMFG; ISSN: 1224-6018
PUBLISHER: Universitatii "Politehnica" din Timisoara
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two optically active diols with imide rings were synthesized from aromatic dianhydride and (R)-2-amino-1-butanol (AMB). Secondary products with zwitterionic structure were obtained concomitantly with diacetylated ones in the case of chemical imidization reaction at low temperature A reaction mechanism between dianhydride and AMB was proposed, too. Optically active bismaleimide and N-phenylmaleimide type monomers were synthesized starting from 4-maleimidobenzoic acid or its acid chloride. Some optically active polymers containing different type of imide rings were obtained by polyaddn. reactions from described monomers.

IT 52-90-4, L-Cysteine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and characterization of optically active diols containing imide rings for polyurethanes and polyimide polythioethers)
RN 52-90-4 HCAPLUS
CN L-Cysteine (CA INDEX NAME)

Absolute stereochemistry.

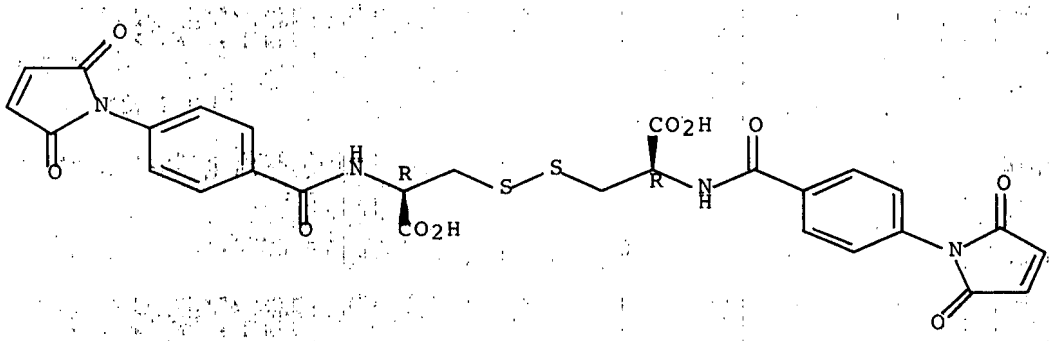


IT 287488-68-0P 287488-69-1P 740846-73-5P
740846-74-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of optically active diols containing imide rings for polyurethanes and polyimide polythioethers)
RN 287488-68-0 HCAPLUS
CN L-Cystine, N,N'-bis[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)benzoyl]-, polymer with 1,5-pentanedithiol (9CI) (CA INDEX NAME)

CM 1

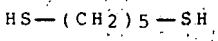
CRN 287488-62-4
CMF C28 H22 N4 O10 S2

Absolute stereochemistry. Rotation (-).



CM 2

CRN 928-98-3
CMF C5 H12 S2

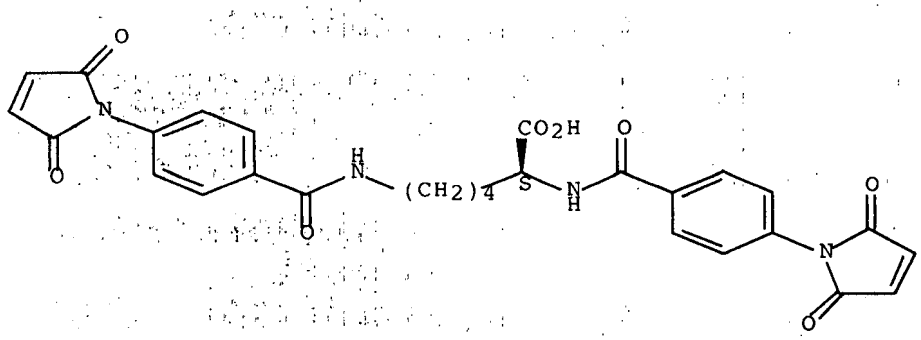


RN 287488-69-1 HCAPLUS
CN L-Lysine, N2,N6-bis[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)benzoyl]-, polymer with 1,5-pentanedithiol (9CI) (CA INDEX NAME)

CM 1

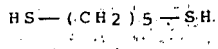
CRN 287488-63-5
CMF C28 H24 N4 O8

Absolute stereochemistry.



CM 2

CRN 928-98-3
CMF C5 H12 S2

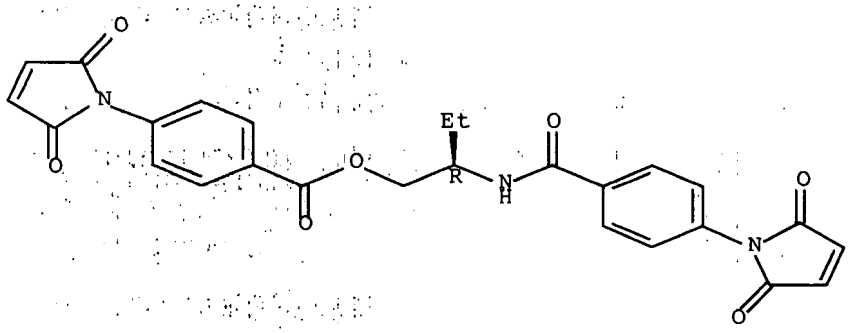


RN 740846-73-5 HCAPLUS
CN Benzoic acid, 4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-, (2R)-2-[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)benzoyl]amino]butyl ester, polymer with 1,5-pentanedithiol (9CI) (CA INDEX NAME)

CM 1

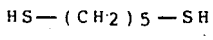
CRN 287488-65-7
CMF C26 H21 N3 O7

Absolute stereochemistry. Rotation (-).



CM 2

CRN 928-98-3
CMF C5 H12 S2



RN 740846-74-6 HCAPLUS
CN Poly[(2,5-dioxo-1,3-pyrrolidinediyl)thio-1,5-pentanediylthio(2,5-dioxo-3,1-pyrrolidinediyl)-1,4-phenylenecarbonylimino[(1R)-1-carboxy-1,2-ethanediyl]dithio[(2R)-2-carboxy-1,2-ethanediyl]iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
CC 35-2 (Chemistry of Synthetic High Polymers)
IT 52-90-4, L-Cysteine, reactions 56-45-1, L-Serine, reactions 56-87-1, L-Lysine, reactions 89-32-7, Pyromellitic dianhydride 464-45-9 2421-28-5, Benzophenonetetracarboxylic acid dianhydride 5856-63-3, (R)-2-Amino-1-butanol 17057-04-4, 4-Maleimidobenzoic acid 29305-46-2, 4-Maleimidobenzoic acid chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and characterization of optically active diols containing imide rings for polyurethanes and polyimide polythioethers)
IT 287488-62-4P 287488-63-5P 287488-64-6P 287488-65-7P 287488-66-8P 287488-68-0P 287488-69-1P 740846-69-9P 740846-70-2P 740846-71-3P 740846-72-4P 740846-73-5P 740846-74-6P
RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis and characterization of optically active diols containing imide rings for polyurethanes and polyimide polythioethers)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:454093 HCAPLUS Full-text
DOCUMENT NUMBER: 139:26651
TITLE: Modified lipids as delivery vehicles for therapeutic agents
INVENTOR(S): Jorgensen, Michael; Keller, Michael; Miller, Andrew David; Perouzel, Eric
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003047549	A2	20030612	WO 2002-GB5471	200212 04
			<--	
WO 2003047549	A3	20031231		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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AU 2002347327	A1	20030617	AU 2002-347327	200212 04
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EP 1455834	A2	20040915	EP 2002-783264	200212 04
			<--	
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JP 2005515990	T	20050602	JP 2003-548805	200212 04
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CN 1863559	A	20061115	CN 2002-824471	200212

04
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US 2005064023 A1 20050324 US 2004-496970
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PRIORITY APPLN. INFO.: GB 2001-29121 A
200112
05
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WO 2002-GB5471 W
200212
04
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OTHER SOURCE(S): MARPAT 139:26651

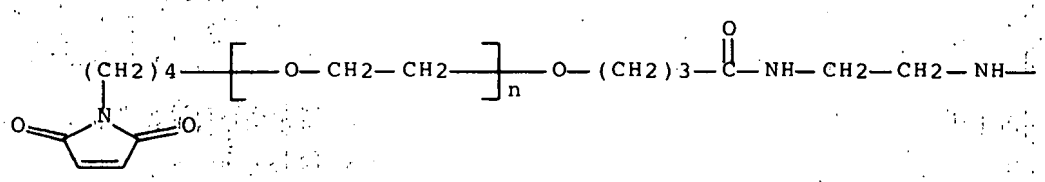
AB The present invention provides a delivery vehicle for a therapeutic agent comprising a modified lipid and a therapeutic agent (e.g., DNA); wherein the modified lipid comprises a lipid and a delivery, targeting or stabilizing moiety (DTS moiety); wherein the lipid is linked to the DTS moiety via a linker which is stable in biol. fluid and which is unstable in defined conditions; and wherein the DTS moiety is linked to the lipid alter formation of a complex of lipid and therapeutic agent. Thus, a cholesterol-containing lipid was obtained by the reaction of a cholesterol derivative with a serine derivative Liposomes were obtained from DOPE and the above lipid. The addition of PEG dialdehyde stabilized the liposomes.

IT 539792-14-8P 539792-18-2P 539792-21-7P
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(in preparation of PEG-lipid systems; modified lipids as delivery vehicles for therapeutic agents)

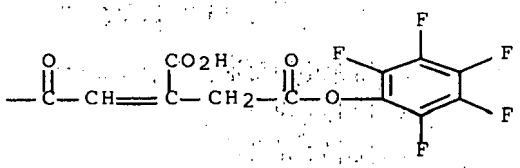
RN 539792-14-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]-ω-[4-[[2-[[(2Z)-3-carboxy-1,5-dioxo-5-(pentafluorophenoxy)-2-pentenyl]amino]ethyl]amino]-4-oxobutoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



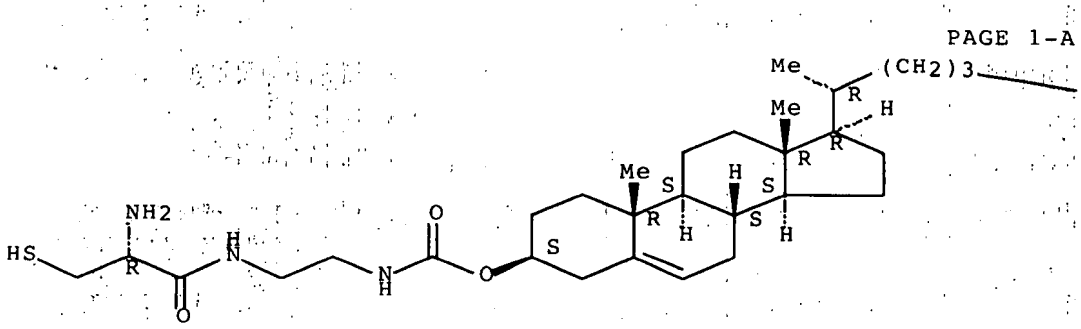
PAGE 1-B



RN 539792-18-2 HCAPLUS

CN Cholest-5-en-3-ol (3β)-, [2-[[(2R)-2-amino-3-mercapto-1-oxopropyl]amino]ethyl]carbamate (9CI) (CA INDEX NAME)

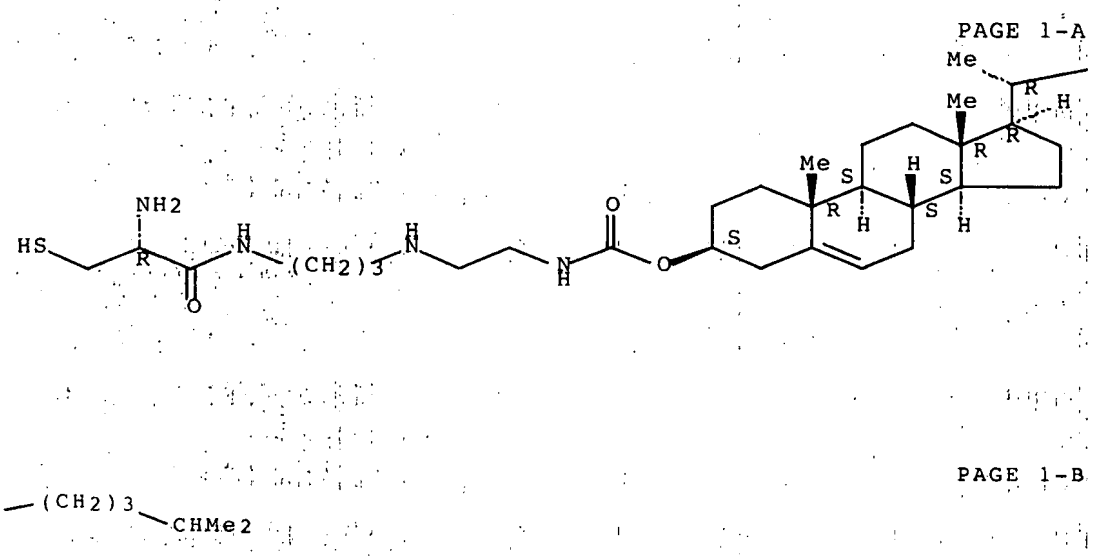
Absolute stereochemistry.



RN 539792-21-7 HCAPLUS

CN Cholest-5-en-3-ol (3β)-, [2-[[3-[[(2R)-2-amino-3-mercapto-1-oxopropyl]amino]propyl]amino]ethyl]carbamate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



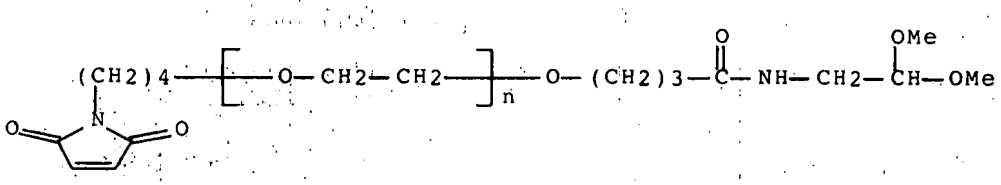
IT 539792-11-5P 539792-12-6P 539792-13-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation of PEG-lipid systems; modified lipids as delivery vehicles for therapeutic agents)

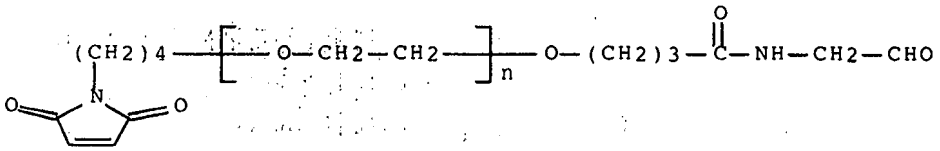
RN 539792-11-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]-ω-[4-[(2,2-dimethoxyethyl)amino]-4-oxobutoxy]- (9CI) (CA INDEX NAME)



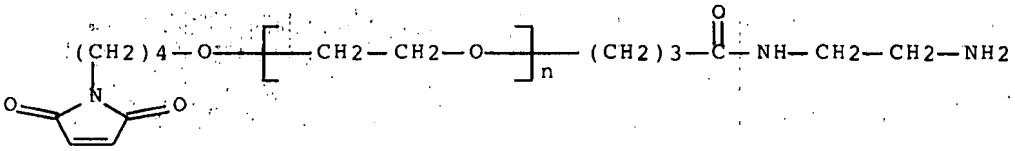
RN 539792-12-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butyl]-ω-[4-[(2-oxoethyl)amino]-4-oxobutoxy]- (9CI) (CA INDEX NAME)



RN 539792-13-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[4-[(2-aminoethyl)amino]-4-oxobutyl]-ω-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)butoxy]- (9CI) (CA INDEX NAME)



IC ICM A61K009-00

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 32, 34

IT Polyoxyalkylenes, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dialdehyde derivative; modified lipids as delivery vehicles for therapeutic agents)

IT Polyoxyalkylenes, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(modified lipids as delivery vehicles for therapeutic agents)

IT DNA
Lipids, biological studies
Nucleotides, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modified lipids as delivery vehicles for therapeutic agents)

IT 436147-57-8P 539792-14-8P 539792-16-0P 539792-17-1P
539792-18-2P 539792-19-3P 539792-20-6P
539792-21-7P 539792-22-8P 539792-23-9P
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(in preparation of PEG-lipid systems; modified lipids as delivery vehicles for therapeutic agents)

IT 105069-83-8P 123628-75-1P 136099-11-1P 284494-09-3P
436147-53-4P 436147-54-5P 436147-55-6P 436147-56-7P
437712-87-3P 437712-88-4P 539792-11-5P
539792-12-6P 539792-13-7P 539792-15-9P
539792-24-0P 539792-25-1P 539792-26-2P 539792-27-3P
539792-28-4P 539792-31-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of PEG-lipid systems; modified lipids as delivery vehicles for therapeutic agents)

L32 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:129325 HCAPLUS Full-text
DOCUMENT NUMBER: 138:193258
TITLE: Methods of imaging and treatment with targeted compositions
INVENTOR(S): Unger, Evan C.; Wu, Yunqiu
PATENT ASSIGNEE(S): Bristol-Myers Squibb Medical Imaging, Inc., USA
SOURCE: U.S., 96 pp., Cont.-in-part of U.S. Ser. No. 218,660.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6521211	B1	20030218	US 1999-243640	19990203
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CN 1187137	A	19980708	CN 1996-194499	19960606
			<--	
CN 1083280	B	20020424		
EP 1444991	A1	20040811	EP 2004-76279	19960606
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CA 2362200	A1	20000810	CA 2000-2362200	20000202
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WO 2000045856	A2	20000810	WO 2000-US2620	200002

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ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
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200301
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199506
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US 1996-640464 B2
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US 1996-660032 B2
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US 1998-73913P P
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US 1998-218660 A2
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US 1999-243640 A
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WO 2000-US2620 W
200002

02

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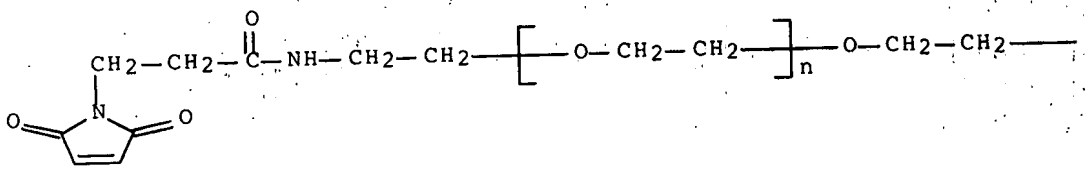
AB The invention concerns novel ultrasound methods comprising administering to a patient a targeted vesicle composition which comprises vesicles comprising a lipid, protein or polymer, encapsulating a gas, in combination with a targeting ligand, and scanning the patient using ultrasound. The scanning may comprise exposing the patient to a first type of ultrasound energy and then interrogating the patient using a second type of ultrasound energy. The targeting ligand preferably targets tissues, cells or receptors, including myocardial cells, endothelial cells, epithelial cells, tumor cells and the glycoprotein GPIIbIIIa receptor. The methods may be used to detect a thrombus, enhancement of an old or echogenic thrombus, low concns. of vesicles and vesicles targeted to tissues, cells or receptors.

IT 186750-26-5P 497861-52-6P 497861-53-7DP, conjugate with protein A
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(methods of imaging and treatment with targeted compns.)

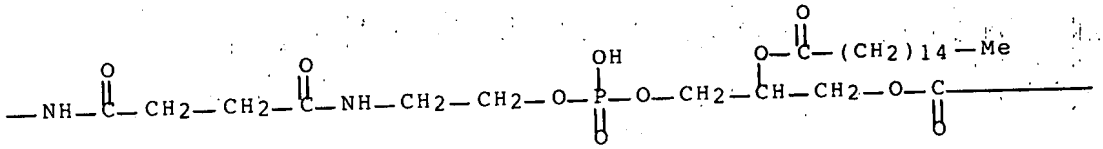
RN 186750-26-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]-ω-[[(15R)-12-hydroxy-12-oxido-4,7,18-trioxo-15-[(1-oxohexadecyl)oxy]-11,13,17-trioxa-3,8-diaza-12-phosphatritriacont-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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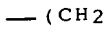
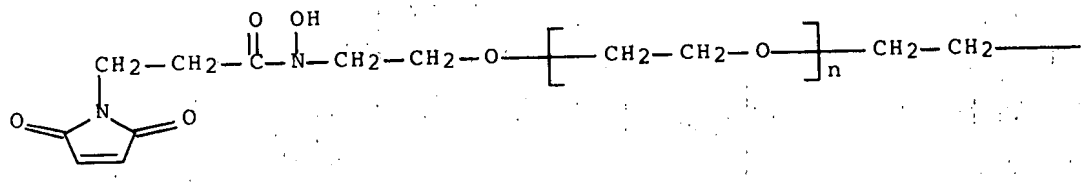


RN 497861-52-6 HCAPLUS

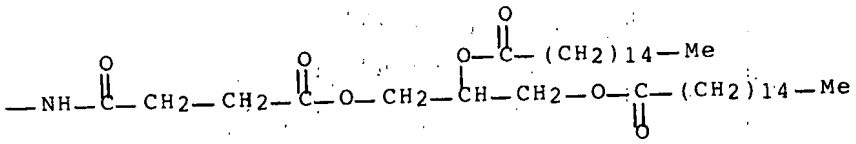
CN Poly(oxy-1,2-ethanediyl), α-[2-[[4-[(2R)-2,3-bis[(1-

oxohexadecyl)oxy]propoxy]-1,4-dioxobutyl]amino]ethyl]-ω-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]hydroxyamino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



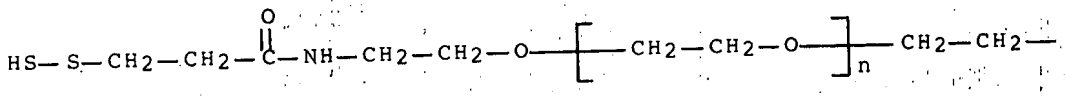
PAGE 1-B



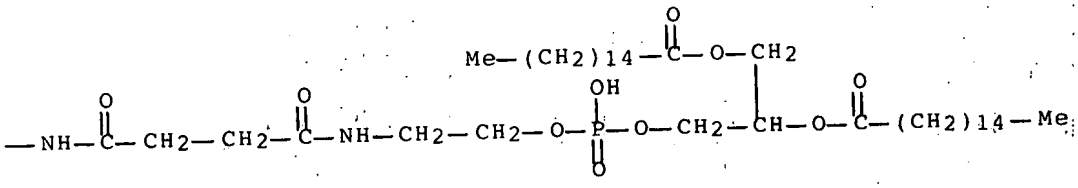
RN 497861-53-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[(15R)-12-hydroxy-12-oxido-4,7,18-trioxo-15-[(1-oxohexadecyl)oxy]-11,13,17-trioxa-3,8-diaza-12-phosphatritriacont-1-yl]-ω-[2-[[3-(mercaptothio)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM A61B008-00
ICS A61R009-127; A61R038-00; A61R038-04

INCL 424009520; 424009510; 424009520; 424009500; 424450000; 600431000; 600437000; 514018000; 514002000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 14, 37

IT 186750-11-8P 186750-14-1P 186750-26-5P 186750-28-7P
186750-29-8P 186750-31-2P 221553-44-2DP, conjugate with protein
A 221553-48-6P 287952-89-0P 287952-92-5P 287952-93-6P
287952-95-8P 287952-99-2P 497861-50-4P 497861-51-5P
497861-52-6P 497861-53-7DP, conjugate with protein
A 497861-54-8P 497861-55-9P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(methods of imaging and treatment with targeted compns.)

REFERENCE COUNT: 546 THERE ARE 546 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:4992 HCAPLUS Full-text
DOCUMENT NUMBER: 136:241803
TITLE: Membrane-active properties of α-MSH analogs: aggregation and fusion of liposomes triggered by surface-conjugated peptides
AUTHOR(S): Lima de Souza, Debora; Frisch, Benoit; Duportail, Guy; Schuber, Francis
CORPORATE SOURCE: Laboratoire de Chimie Bioorganique, Universite Louis Pasteur, Faculte de Pharmacie, UMR 7514 CNRS/ULP, Illkirch, 67400, Fr.
SOURCE: Biochimica et Biophysica Acta, Biomembranes (2002), 1558(2), 222-237
CODEN: BBBMBS; ISSN: 0005-2736
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

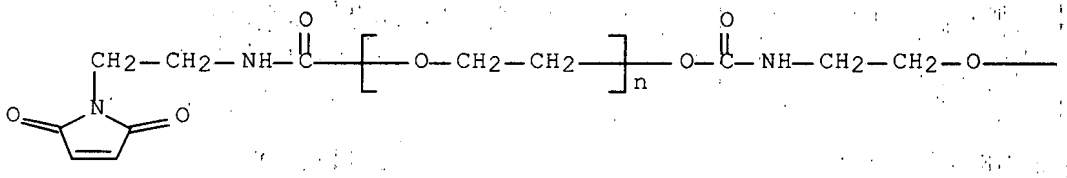
AB Reaction of the melanotropin hormone analogs [Nle4,D-Phe7]-α- MSH and [Nle4,D-Phe7]-α-MSH(4-10), which were extended at their N-terminus by a thiol-functionalized spacer arm, with preformed liposomes containing thiol-reactive (phospho)lipid derivs. resulted in the aggregation of the vesicles and in a partial leakage of their inner contents. This aggregation/leakage effect, which was only observed when the peptides were covalently conjugated to the surface of the liposomes, was correlated with the fusion of the vesicles as demonstrated by the observed decrease in resonance energy transfer between probes in a membrane lipid mixing assay. A limited fusion was confirmed by monitoring the mixing of the liposome inner contents (formation of 1-aminonaphthalene-3,6,8-trisulfonic acid/p-xylene bis(pyridinium bromide) complex). The membrane-active properties of the peptides could be correlated with changes in the fluorescence emission spectra of their tryptophan residue, which suggested that after their covalent binding to the outer surface of the liposomes they can partition within the core of the bilayers. A blue shift of 10 nm was observed for [Nle4,D-Phe7]-α-MSH which was correlated with an increase in fluorescence anisotropy and with changes in the accessibility of the coupled peptide as assessed by the quenching of fluorescence of its tryptophan residue by iodide (Stern-Volmer plots). These results should be related to the previously described capacity of α-MSH, and analogs, to interact with membranes and with the favored conformation of these peptides which, via a β-turn, segregate their central hydrophobic residues into a domain that could insert into membranes and, as shown here, trigger their destabilization.

IT 404354-30-9
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

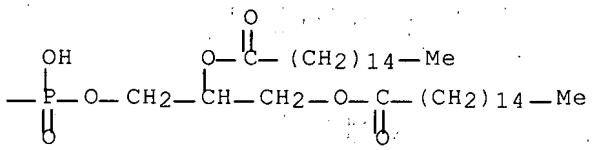
RN 404354-30-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]carbonyl]-ω-[[(9R)-6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxohexadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphaheptacos-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



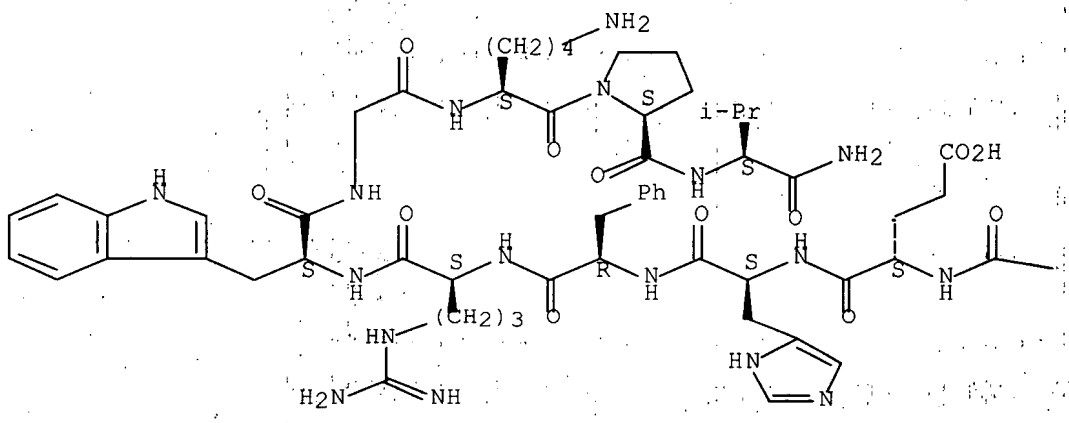
IT **158470-38-3 158470-38-3D**, conjugates with phospholipid thiol-reactive derivs. **342643-63-4 342643-63-4D**, conjugates with phospholipid thiol-reactive derivs.
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

RN 158470-38-3 HCAPLUS

CN α1-13-Corticotropin, N-(3-mercapto-1-oxopropyl)-4-L-norleucine-7-D-phenylalanine-13-L-valinamide- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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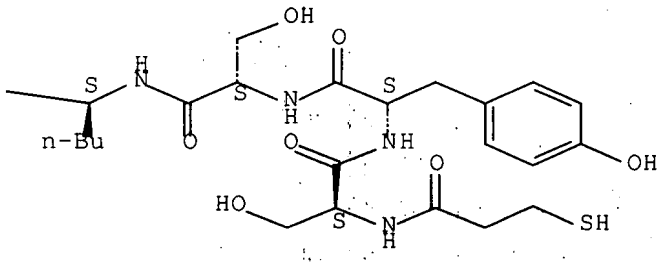
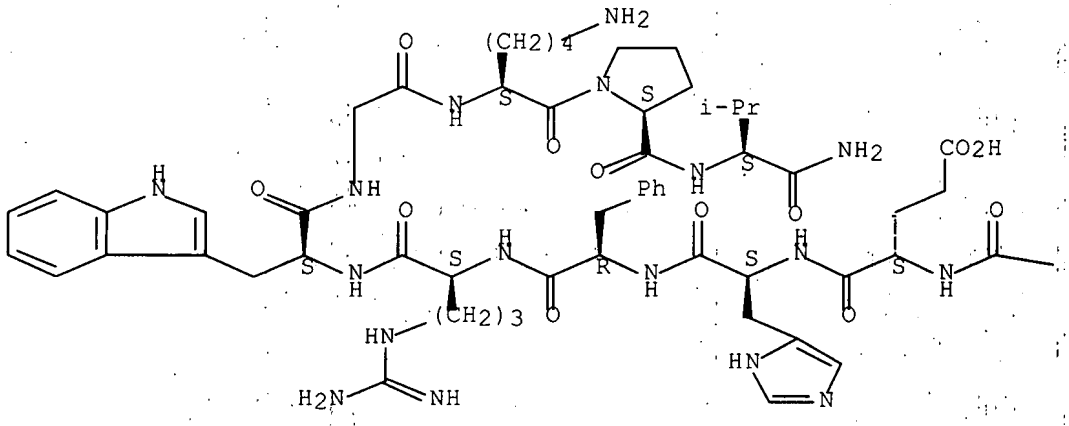


RN 158470-38-3 HCAPLUS

CN α1-13-Corticotropin, N-(3-mercapto-1-oxopropyl)-4-L-norleucine-7-D-phenylalanine-13-L-valinamide- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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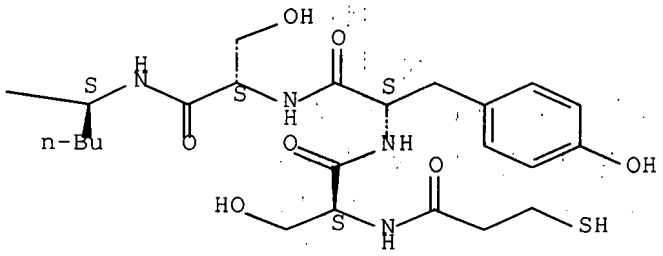
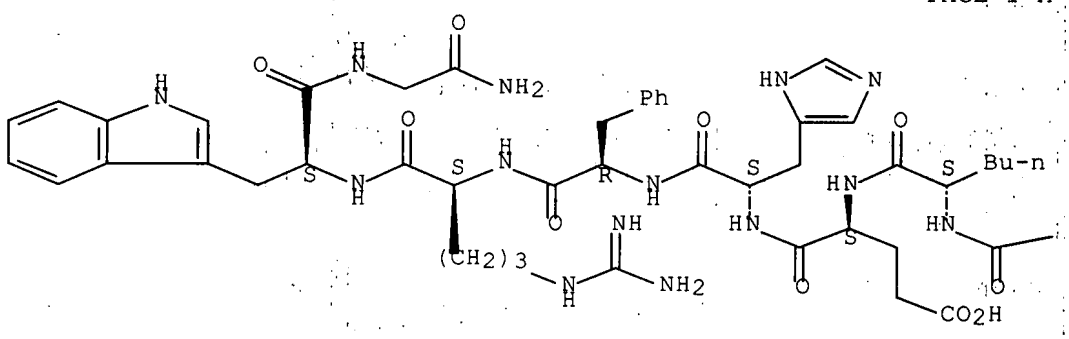


RN 342643-63-4 HCAPLUS

CN Glycinamide, N-(3-mercapto-1-oxopropyl)glycyl-L-norleucyl-L-α-glutamyl-L-histidyl-D-phenylalanyl-L-arginyl-L-tryptophyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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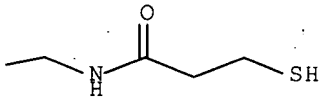


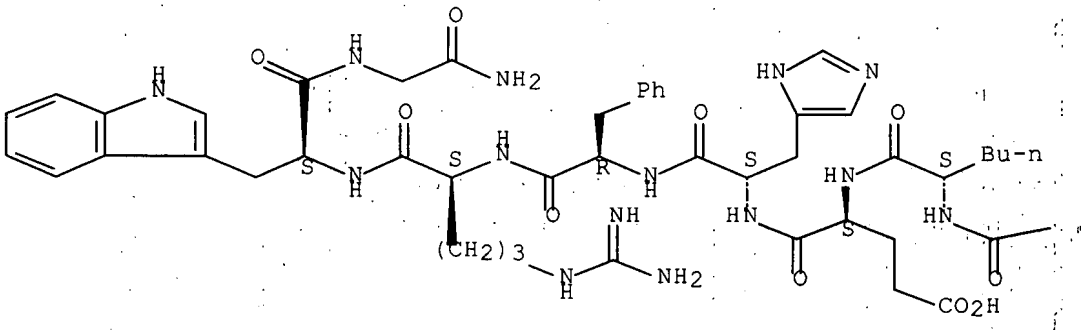
RN 342643-63-4 HCAPLUS

CN Glycinamide, N-(3-mercapto-1-oxopropyl)glycyl-L-norleucyl-L-α-

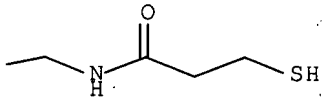
glutamyl-L-histidyl-D-phenylalanyl-L-arginyl-L-tryptophyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 2-2 (Mammalian Hormones)
Section cross-reference(s): 63

IT Cell membrane
Fusion, **biological**
Hydrophobicity
Liposomes
Self-association
Sulfhydryl group
β-Turn
(aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

IT Membrane, **biological**
(bilayer; aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

IT Phosphatidylcholines, **biological** studies
Phosphatidylglycerols
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(liposomes; aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of

α-MSH analogs)

IT Phospholipids, biological studies
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(thiol-reactive derivs.; aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

IT 404354-28-5 404354-29-6 404354-30-9 404354-31-0
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

IT 37213-49-3D, α-MSH, analogs 158470-38-3
158470-38-3D, conjugates with phospholipid thiol-reactive derivs. 342643-63-4 342643-63-4D, conjugates with phospholipid thiol-reactive derivs.
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

IT 57-88-5, Cholesterol, biological studies 185463-23-4, DPPG
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(liposomes; aggregation and fusion of liposomes triggered by surface-conjugated peptides in membrane-active properties of α-MSH analogs)

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:889341 HCAPLUS Full-text
DOCUMENT NUMBER: 136:146764
TITLE: UV Resonance Raman Study of β93-Modified Hemoglobin A: Chemical Modifier-Specific Effects and Added Influences of Attached Poly(ethylene glycol) Chains
AUTHOR(S): Juszczak, Laura J.; Manjula, Belur; Bonaventura, Celia; Acharya, Seetharama A.; Friedman, Joel M.
CORPORATE SOURCE: Department of Physiology and Biophysics, Albert Einstein College of Medicine, Bronx, NY, 10461, USA
SOURCE: Biochemistry (2002), 41(1), 376-385
CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reactive sulfhydryl group on Cys β93 in human adult Hb (HbA) has been the focus of many studies because of its importance both as a site for synthetic manipulation and as a possible binding site for nitric oxide (NO) in vivo. Despite the interest in this site and the known functional alterations associated with manipulation of this site, there is still considerable uncertainty as to the conformational basis for these effects. UV resonance Raman (UVRR) spectroscopy is

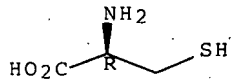
used in this study to evaluate the conformational consequences of chemical modifying the Cys β93 sulfhydryl group of both the deoxy and CO-saturated derivs. of HbA using different maleimide and mixed disulfide reagents. Included among the maleimide reagents are NEM (n-ethylmaleimide) and several poly(ethylene glycol) (PEG)-linked maleimides. The PEG-based reagents include both different sizes of PEG chains (PEG2000, -5000, and -20000) and different linkers between the PEG and the maleimide. Thus, the effect on the conformation of both linker chemical and PEG size is evaluated. The spectroscopic results reveal minimal perturbation of the global structure of deoxyHbA for the mixed disulfide modification. In contrast, maleimide-based modifications of HbA perturb the deoxy T state of HbA by "loosening" the contacts associated with the switch region of the T state α1β2 interface but do not modify the hinge region of this interface. When the NEM-modified HbA is also subjected to enzymic treatment to remove the C-terminal Arg α141 (yielding NESdes-ArgHb), the resulting deoxy derivative exhibits the spectroscopic features associated with a deoxy R state species. All of the CO-saturated derivs. exhibit spectra that are characteristic of the fully liganded R structure. The deoxy and CO derivs. of HbA that have been decorated on the surface with large PEG chains linked to the maleimide-modified sulfhydryl through a short linker group all show a general intensity enhancement of the tyrosine and tryptophan bands in the UVRR spectrum. It is proposed that this effect arises from the osmotic impact of a large, close PEG mol. enveloping the surface of the protein.

IT 52-90-4, L-Cysteine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(93; modifier-specific effects and added influences of attached poly(ethylene glycol) chains in the case of β93-modified Hb A as studied by UV resonance Raman spectroscopy)

RN 52-90-4 HCAPLUS

CN L-Cysteine (CA INDEX NAME)

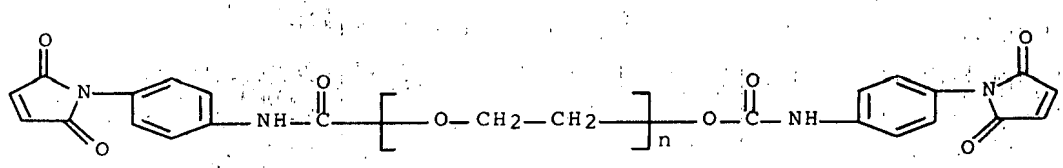
Absolute stereochemistry.



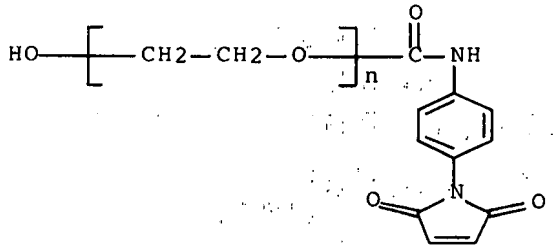
IT 265308-62-1D, reaction products with Hb A
395676-19-4D, reaction products with Hb A
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(modifier-specific effects and added influences of attached poly(ethylene glycol) chains in the case of β93-modified Hb A as studied by UV resonance Raman spectroscopy)

RN 265308-62-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)phenyl]amino]carbonyl]-ω-[[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)phenyl]amino]carbonyl]oxy]- (9CI) (CA INDEX NAME)



RN 395676-19-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)phenyl]amino]carbonyl]-ω-hydroxy- (CA INDEX NAME)



CC 6-3 (General Biochemistry)
IT 52-90-4, L-Cysteine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(93; modifier-specific effects and added influences of attached poly(ethylene glycol) chains in the case of β93-modified Hb A as studied by UV resonance Raman spectroscopy)
IT 70-18-8D, Glutathione, reaction products with Hb A 128-53-0D, reaction products with Hb A 58914-60-6D, reaction products with Hb A 88504-24-9D, reaction products with Hb A 265308-62-1D, reaction products with Hb A 395676-19-4D, reaction products with Hb A
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(modifier-specific effects and added influences of attached poly(ethylene glycol) chains in the case of β93-modified Hb A as studied by UV resonance Raman spectroscopy)
REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

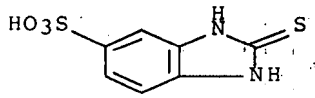
L32 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:256794 HCAPLUS Full-text
DOCUMENT NUMBER: 135:47625
TITLE: Reactive hydrogels grafted on gold surfaces
AUTHOR(S): Laschewsky, Andre; Ouari, Olivier; Mangeney, Claire; Jullien, Ludovic
CORPORATE SOURCE: Universite catholique de Louvain, Dept. of Chemistry, Louvain-la-Neuve, B-1348, Belg.
SOURCE: Macromolecular Symposia (2001), 164(Reactive Polymers), 323-340
CODEN: MSYMEC; ISSN: 1022-1360
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three different strategies for the fixation of stable hydrogel coatings on gold surfaces, by the grafting-to and grafting-from techniques, are described. Monomeric or polymeric disulfide initiators are employed to start the photopolymn. of N-[tris(hydroxymethyl)methyl]acrylamide (I) via decomposition of azo compds. or via a photoredox system. Different approaches, based on the post functionalization of the poly(I) films or on copolymn. of reactive monomers with I, are employed to bind potential receptor mols. bearing amino or thiol groups as

anchor to the hydrogel. Thus, the functionalized coatings should allow the selective binding of particular analyzates. The overall goal is focused on hydrogel films for the preparation of biochips used in anal. devices such as surface plasmon resonance (SPR), though the approach seems to be generally useful for related purposes.

IT 53918-03-9DP, reaction products with acrylamide derivative copolymers 344621-38-1DP, reaction products with 2-mercapto-5-benzimidazolesulfonate
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fixation of hydrogel coatings on gold surfaces by grafting-to and grafting-from techniques)

RN 53918-03-9 HCAPLUS

CN 1H-Benzimidazole-5-sulfonic acid, 2,3-dihydro-2-thioxo-, sodium salt (1:1) (CA INDEX NAME)

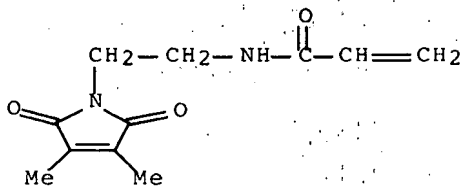


RN 344621-38-1 HCAPLUS

CN 2-Propenamide, N-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-, polymer with N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]-2-propenamide (9CI) (CA INDEX NAME)

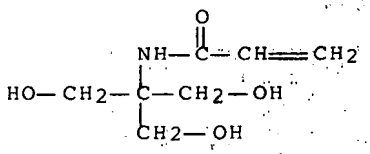
CM 1

CRN 249621-29-2
CMF C11 H14 N2 O3



CM 2

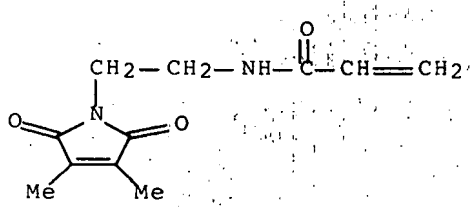
CRN 13880-05-2
CMF C7 H13 N O4



IT 344621-38-1P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of macroinitiator for fixation of hydrogel coatings on gold surfaces by grafting-to and grafting-from techniques)
RN 344621-38-1 HCAPLUS
CN 2-Propenamide, N-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-, polymer with N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]-2-propenamide (9CI) (CA INDEX NAME)

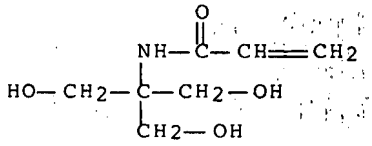
CM 1

CRN 249621-29-2
CMF C11 H14 N2 O3



CM 2

CRN 13880-05-2
CMF C7 H13 N O4



CC 42-2 (Coatings, Inks, and Related Products)
IT 53918-03-9DP, reaction products with acrylamide derivative copolymers 344621-38-1DP, reaction products with 2-mercapto-5-benzimidazolesulfonate
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fixation of hydrogel coatings on gold surfaces by grafting-to and grafting-from techniques)
IT 344621-38-1P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of macroinitiator for fixation of hydrogel coatings on gold surfaces by grafting-to and grafting-from techniques)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:95555 HCAPLUS Full-text
DOCUMENT NUMBER: 135:13817
TITLE: Enhancement of gene delivery by an analogue of α-MSH in a receptor-independent fashion
AUTHOR(S): Chluba, J.; Lima de Souza, D.; Frisch, B.; Schuber, F.
CORPORATE SOURCE: Laboratoire de Chimie Bioorganique, UMR 7514 CNRS-ULP, Faculte de Pharmacie, Illkirch, 67400, Fr.
SOURCE: Biochimica et Biophysica Acta, Biomembranes (2001), 1510(1-2), 198-208
CODEN: BBBMBS; ISSN: 0005-2736
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In order to transfect melanoma specifically by receptor-mediated endocytosis we prepared dioctadecyl aminoglycylspermine (lipospermine)-DNA complexes with [Nle4,D-Phe7]-α-MSH(4-10), a pseudo-peptide analog of α-MSH (α-MSH) linked to a thiol-reactive phospholipid. With these complexes we obtained an up to 70-fold increase of transfection with B16-F1 melanoma cells. However when B16-G4F, an α-MSH receptor neg. melanoma cell line was transfected, an up to 700-fold increased transfection efficiency was observed The peptide hormone analog was equally efficient when it was only mixed with lipospermine-DNA complexes without covalent coupling. In addition to melanoma cells we also obtained up to 30-fold increased transfection with BN cells (embryonic liver cells). Our data show that an α-MSH analog increased transfection independently of the MSH receptor expression but reaches efficiencies approaching those obtained with peptides derived from viral fusion proteins. The absence of targeting of constructs containing [Nle4,D-Phe7]-α-MSH(4-10) can probably be attributed due to the relatively modest number of MSH receptors at the surface of melanoma. We suggest, however, that the peptide hormone analog used in this study has membrane-active properties and could be of interest as helper agent to enhance non-viral gene delivery presumably by endosomal-destabilizing properties.

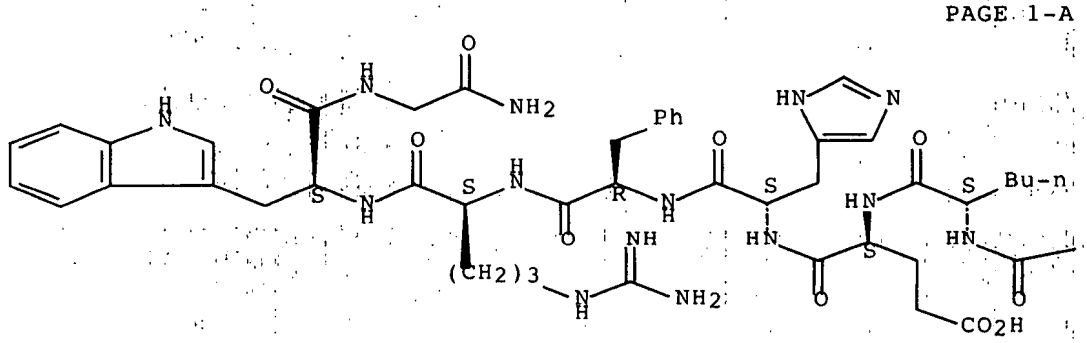
IT 342643-63-4 342643-64-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(enhancement of gene delivery by analog of α-MSH in receptor-independent fashion)

RN 342643-63-4 HCAPLUS

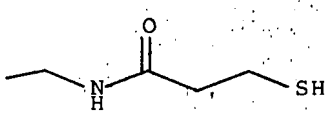
CN Glycinamide, N-(3-mercapto-1-oxopropyl)glycyl-L-norleucyl-L-α-glutamyl-L-histidyl-D-phenylalanyl-L-arginyl-L-tryptophyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



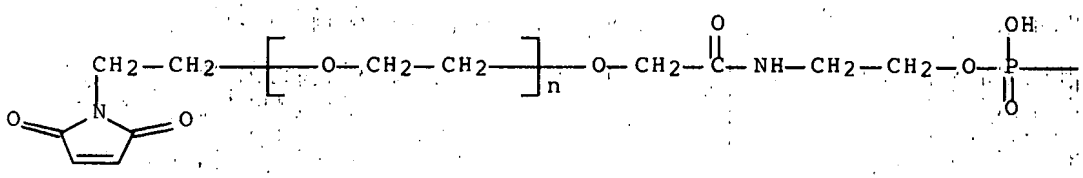
PAGE 1-B



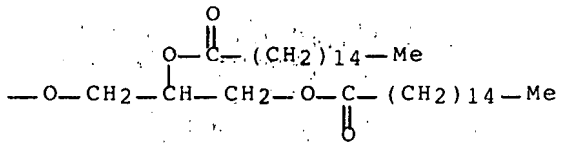
RN 342643-64-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-ω-[[7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

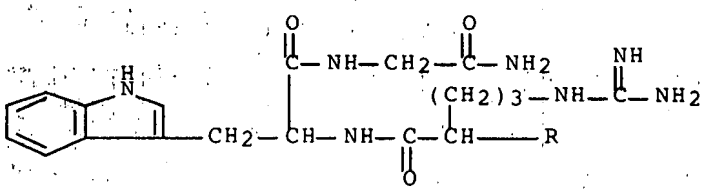


IT 342643-65-6DP, lipospermine-DNA complex
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enhancement of gene delivery by analog of α-MSH in receptor-independent fashion)

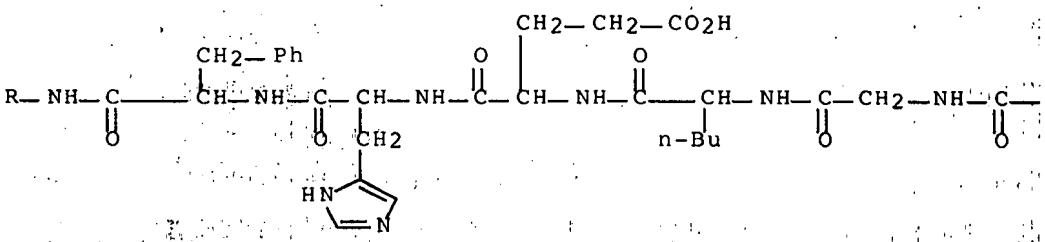
RN 342643-65-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[7-hydroxy-7-oxido-2,13-dioxo-10-[(1-oxohexadecyl)oxy]-6,8,12-trioxa-3-aza-7-phosphaoctacos-1-yl]-ω-hydroxy-, ether with N-[3-[[1-(2-hydroxyethyl)-2,5-dioxo-3-pyrrolidinyl]thio]-1-oxopropyl]glycyl-L-norleucyl-L-α-glutamyl-L-histidyl-D-phenylalanyl-L-arginyl-L-tryptophylglycinamide (9CI) (CA INDEX NAME)

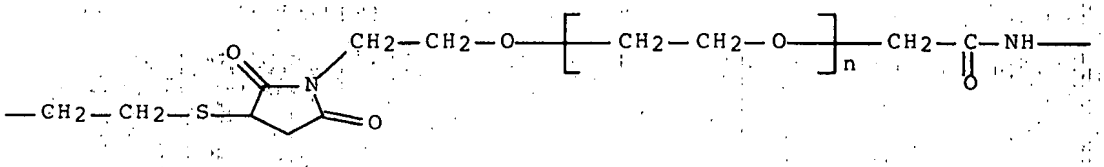
PAGE 1-A



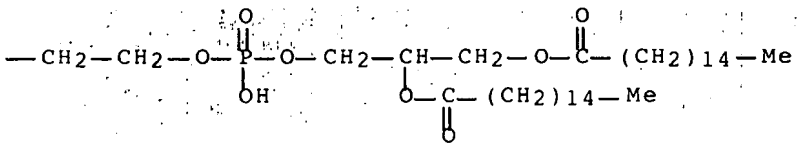
PAGE 2-A



PAGE 2-B



PAGE 2-C



CC 1-2 (Pharmacology)
Section cross-reference(s): 63

IT 342643-63-4 342643-64-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(enhancement of gene delivery by analog of α-MSH in receptor-independent fashion)

IT 342643-65-6DP, lipospermine-DNA complex
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enhancement of gene delivery by analog of α-MSH in

receptor-independent fashion)
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:78501 HCAPLUS Full-text
DOCUMENT NUMBER: 134:143876
TITLE: Protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compositions
INVENTOR(S): Rubingh, Donn Nelton; Weisgerber, David John; Correa, Paul Elliott
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007577	A2	20010201	WO 2000-US18854	200007 11
			<--	
WO 2001007577	A3	20010830		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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			<--	
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EP 1196547	A2	20020417	EP 2000-945317	200007 11
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AU 777550	B2	20041021	AU 2000-59283	200007 11
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US 6946128 B1 20050920 US 2000-618235 200007 18
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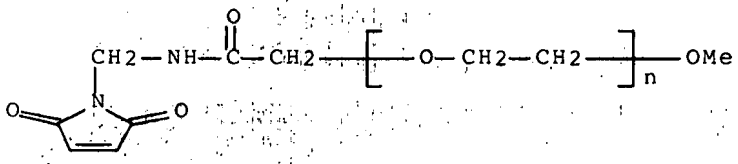
PRIORITY APPLN. INFO.: US 1999-144979P P 199907 22
<--
WO 2000-US18854 W 200007 11
<--

AB The present disclosure relates to subtilisin protease conjugate comprising a protease moiety and one or more addition moieties. Each addition moiety is covalently attached to an epitope protection position of the protease moiety. The protease conjugates have decreased immunogenicity relative to a parent protease. The present disclosure further relates to cleaning and personal care compns. comprising the protease conjugates.

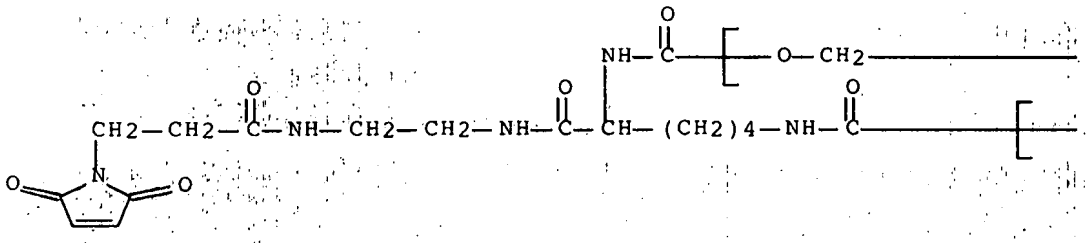
IT 244287-84-1 322725-90-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compns.)

RN 244287-84-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]amino]-2-oxoethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 322725-90-6 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α'-[[(1S)-1-[[[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]carbonyl]-1,5-pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (CA INDEX NAME)

PAGE 1-A



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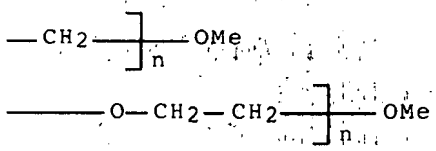
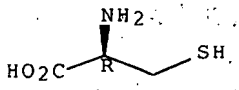


IT 52-90-4, Cysteine, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or reagent)
(substituting amino acid; protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compns.)
RN 52-90-4 HCAPLUS
CN L-Cysteine (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C12N009-00
CC 7-8 (Enzymes)
Section cross-reference(s): 46, 62
IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates with proteinases; protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compns.)
IT Polymers, biological studies
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates, with proteases; protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compns.)
IT 541-59-3D, Maleimide, alkyl derivs. 244287-84-1
322725-90-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compns.)
IT 52-90-4, Cysteine, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or reagent)
(substituting amino acid; protease conjugates having sterically protected epitope regions and their uses in cleaning and personal care compns.)

L32 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:78425 HCAPLUS Full-text

DOCUMENT NUMBER: 134:143874
TITLE: Protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compositions
INVENTOR(S): Weisgerber, David John; Rubingh, Donn Nelton; Correa, Paul Elliott
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007484	A2	20010201	WO 2000-US18855	200007 11
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WO 2001007484	A3	20010607		
W:	AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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			<--	
BR 2000012694	A	20020409	BR 2000-12694	200007 11
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EP 1196548	A2	20020417	EP 2000-945318	200007 11
			<--	
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2003516116	T	20030513	JP 2001-512566	200007 11
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US 6566115	B1	20030520	US 2000-618740	200007 18
			<--	
PRIORITY APPLN. INFO.:			US 1999-144981P P	199907 22
			<--	
			WO 2000-US18855 W	200007

11

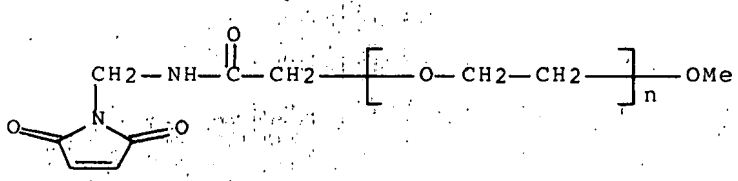
<--

AB The present disclosure relates to subtilisin protease conjugate comprising a protease moiety and one or more addition moieties. Each addition moiety is covalently attached to a clip site protection position of the protease moiety, wherein the clip site protection positions are selected from 13, 14, 15, 16, 18, 19, 20, 21, 84, 85, 88, 158, 159, 160, 161, 162, 163, 164, 165, 170, 186, 191, 192, 193, 194, 196, 259, 260, 261, 262, and 274 corresponding to subtilisin BPN'. The protease conjugates have decreased immunogenicity relative to a parent protease. The present disclosure further relates to cleaning and personal care compns. comprising the protease conjugates.

IT 244287-84-1 322725-90-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compns.)

RN 244287-84-1 HCAPLUS

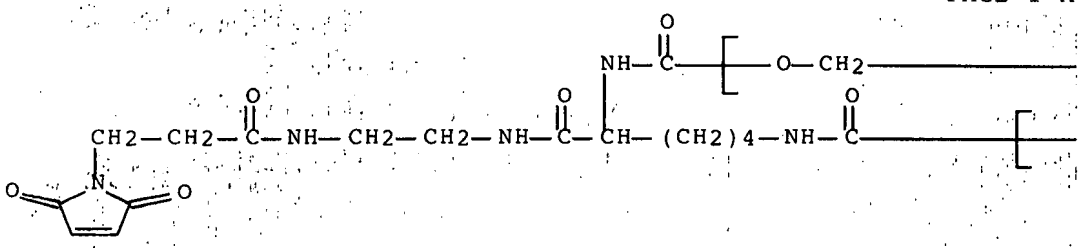
CN Poly(oxy-1,2-ethanediyl), α-[2-[[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]amino]-2-oxoethyl]-ω-methoxy- (9CI) (CA INDEX NAME)



RN 322725-90-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α,α'-[[(1S)-1-[[[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethyl]amino]carbonyl]-1,5-pentanediyl]bis(iminocarbonyl)]bis[ω-methoxy- (CA INDEX NAME)

PAGE 1-A



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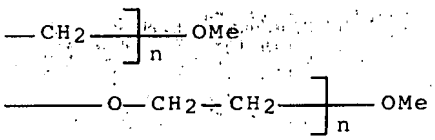
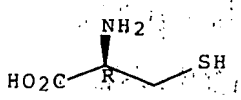


IT 52-90-4, Cysteine, biological studies
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(substituting amino acid; protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compns.)
RN 52-90-4 HCAPLUS
CN L-Cysteine (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07K017-00
CC 7-8 (Enzymes)
Section cross-reference(s): 46, 62, 63
IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates with protease; protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compns.)
IT Polymers, biological studies
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates, with protease; protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compns.)
IT 541-59-3D, Maleimide, alkyl derivs. 244287-84-1
322725-90-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compns.)
IT 52-90-4, Cysteine, biological studies
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(substituting amino acid; protease conjugates having sterically protected clip sites and reduced immunogenicity and their use in cleaning and personal care compns.)

L32 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:314735 HCAPLUS Full-text
DOCUMENT NUMBER: 132:346622
TITLE: Modification of anti-integrin antibodies and antibody fragments for improved pharmacokinetics
INVENTOR(S): Heavner, George A.; Weber, Robert W.
PATENT ASSIGNEE(S): Centocor, Inc., USA
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026256	A2	20000511	WO 1999-US25790	19991102
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WO 2000026256	A3	20011108		
WO 2000026256	A9	20020822		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2353082	A1	20000511	CA 1999-2353082	19991102
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EP 1144452	A2	20011017	EP 1999-962682	19991102
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EP 1144452	A3	20020313		
EP 1144452	B1	20060111		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY				
NZ 512055	A	20031128	NZ 1999-512055	19991102
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AU 768295	B2	20031204	AU 2000-19078	19991102
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AT 315410	T	20060215	AT 1999-962682	19991102
			<--	
PT 1144452	T	20060531	PT 1999-962682	19991102
			<--	
ES 2257094	T3	20060716	ES 1999-962682	19991102
			<--	
PRIORITY APPLN. INFO.:			US 1998-185151 A2	19981103
			<--	
			WO 1999-US25790 W	19991102
			<--	

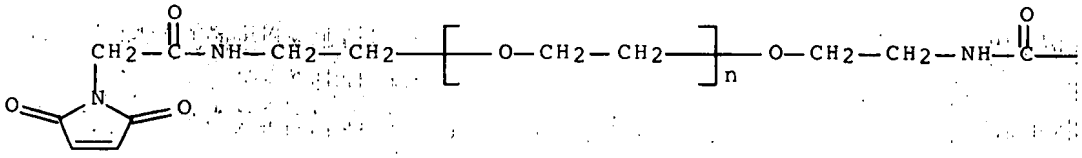
AB The authors disclose the modification of antibodies for improved pharmacokinetics. The antibodies bind to one or more human integrin receptors selected from the group consisting of GPIIb/IIIa, αvβ3 and Mac-1. The modifications comprise organic moieties which are covalently bonded to specific sites on the antibodies. The organic moieties can be hydrophilic polymers, fatty acid groups, fatty acid ester groups, lipids or phospholipids. Also disclosed is treatment of diseases or disorders in which cells expressing GPIIb/IIIa,αvβ3 and/or Mac-1 play a pathophysiol. role.

IT 267431-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(conjugation with antibody)

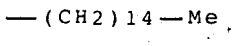
RN 267431-72-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)acetyl]amino]ethyl]-ω-[2-[(1-oxohexadecyl)amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

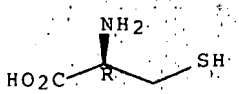


IT 52-90-4, L-Cysteine, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(for modification within anti-integrin antibodies and antibody fragments for improved pharmacokinetics)

RN 52-90-4 HCAPLUS

CN L-Cysteine (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07K016-00

CC 15-3 (Immunochemistry)
Section cross-reference(s): 1, 14

IT Polymers, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates, with anti-integrin antibodies; improved

pharmacokinetics of)
IT Fatty acids, biological studies
Lipids, biological studies
Phospholipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates, with polyethylene glycol; for modification of anti-integrin antibodies and antibody fragments for improved pharmacokinetics)
IT Fatty acids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(esters, conjugates, with polyethylene glycol; for modification of anti-integrin antibodies and antibody fragments for improved pharmacokinetics)
IT Oligosaccharides, biological studies
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(for modification of anti-integrin antibodies and antibody fragments for improved pharmacokinetics)
IT Polyamides, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(poly(amino acids); for modification of anti-integrin antibodies and antibody fragments for improved pharmacokinetics)
IT 267431-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(conjugation with antibody)
IT 52-90-4, L-Cysteine, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(for modification within anti-integrin antibodies and antibody fragments for improved pharmacokinetics)

L32 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:156739 HCAPLUS Full-text
DOCUMENT NUMBER: 132:304797
TITLE: Cys-93-ββ-succinimidophenyl polyethylene glycol 2000 hemoglobin A. Intramolecular cross-bridging of hemoglobin outside the central cavity
AUTHOR(S): Manjula, Belur N.; Malavalli, Ashok; Smith, Paul K.; Chan, Nei-Li; Arnone, Arthur; Friedman, Joel M.; Acharya, A. Seetharama
CORPORATE SOURCE: Departments of Physiology and Biophysics, Albert Einstein College of Medicine, Bronx, NY, 10461, USA
SOURCE: Journal of Biological Chemistry (2000), 275(8), 5527-5534
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

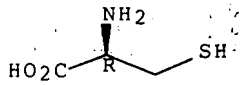
AB Bis(maleidophenyl)-PEG2000 (Bis-Mal-PEG2000), a new bifunctional protein cross-linker targeted to sulfhydryl groups, introduces intra-tetrameric cross-links into oxy-HbA in nearly quant. yields. Structural as well as crystallog. analyses of the cross-linked species, Bis-Mal-PEG2000 HbA, identified Cys-93(β) as the site of intramol. crosslinking. The cross-bridging had only a limited influence on the O2 affinity and cooperativity of HbA in 50 mM BisTris acetate, pH 7.4. However, the Bohr effect was reduced by .apprx.60%. Bis-Mal-PEG2000 HbA retained sensitivity to the presence of allosteric effectors 2,3-diphosphoglycerate, IHP, and chloride, albeit to a lesser degree compared with HbA. Crystallog. anal. revealed the overall structure of deoxy-Bis-Mal-PEG2000 HbA to be similar to deoxy-HbA but for the loss of the salt bridge between Asp-94(β) and His-146(β). The large influence of the cross-bridging on the alkaline Bohr effect of HbA is consistent with the loss of this salt bridge. Unlike the "central cavity cross-bridges" described previously, the cross-link introduced by Bis-Mal-PEG2000 into HbA is an "outside the central cavity cross-bridge.". In view of its oxy-conformational specificity and limited influence on O2 affinity, this new crosslinking strategy holds promise for the stabilization of new designer low O2 affinity Hbs generated by recombinant DNA technol. for applications as Hb based therapeutics.

IT 52-90-4, L-Cysteine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(intramol. cross-bridging of Hb outside the central cavity results from reaction of bis(maleidophenyl)-PEG2000 with Cys93(β) residues of Hb A)

RN 52-90-4 HCAPLUS

CN L-Cysteine (CA INDEX NAME)

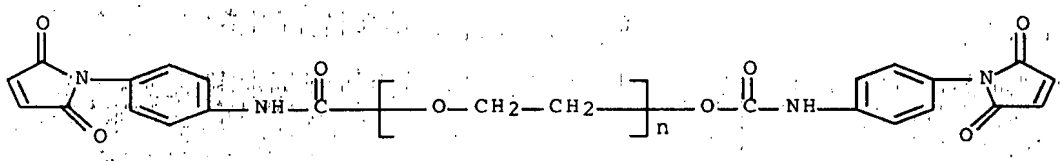
Absolute stereochemistry.



IT 265308-62-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intramol. cross-bridging of Hb outside the central cavity results from reaction of bis(maleidophenyl)-PEG2000 with Cys93(β) residues of Hb A)

RN 265308-62-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)phenyl]amino]carbonyl]-ω-[[[[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)phenyl]amino]carbonyl]oxy]- (9CI) (CA INDEX NAME)



CC 6-3 (General Biochemistry)
Section cross-reference(s): 75

IT 56-84-8, L-Aspartic acid, biological studies 71-00-1,

L-Histidine, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(cross-bridging reaction of bis(maleidophenyl)-PEG2000 with Cys93(β) residues of Hb A causes disruption of salt bridge between Asp94(β) and His146(β))

IT 52-90-4, L-Cysteine, reactions 9034-51-9, Hemoglobin A 25322-68-3 123457-83-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(intramol. cross-bridging of Hb outside the central cavity results from reaction of bis(maleidophenyl)-PEG2000 with Cys93(β) residues of Hb A)

IT 265308-62-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intramol. cross-bridging of Hb outside the central cavity results from reaction of bis(maleidophenyl)-PEG2000 with Cys93(β) residues of Hb A)

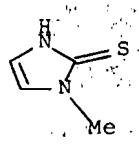
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:678095 HCAPLUS Full-text
DOCUMENT NUMBER: 130:38746
TITLE: Synthesis of water-soluble, nonimmunogenic polyamide crosslinking agents
AUTHOR(S): Hai, Ton That; Pereira, David E.; Nelson, Deanna J.
CORPORATE SOURCE: Hemoglobin Therapeutics Division, Baxter Healthcare Corp., Round Lake, IL, 60073, USA
SOURCE: Bioconjugate Chemistry (1998), 9(6), 645-654
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Novel polyamides were developed that can be used as crosslinking agents for proteins such as Hb. Water-soluble, nonimmunogenic polyamides containing oxygen and sulfur atoms in the backbone were prepared by the polycondensation of the diacids bis(carboxymethyloxyacetyl)-1,4-diaminobutane or 3,3'-thiodipropionic acid (1b) with diethylene glycol bis(3-aminopropyl) ether. The resulting α,ω-diacids were converted to the corresponding activated esters using any of a variety of carboxylic acid activating reagents including the novel reagent diphenyl(1-methylimidazol-2-thiyl)phosphonate. The resulting polyamides could be activated with a broad spectrum of groups that allow for the crosslinking and surface modification of proteins.

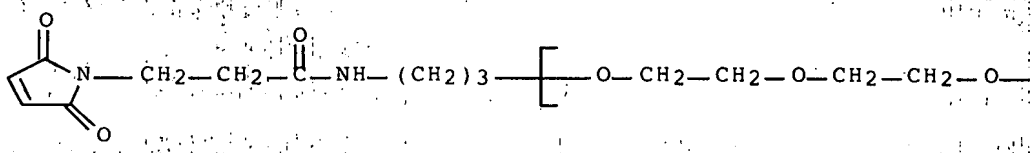
IT 60-56-0, 2-Mercapto-1-methylimidazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(diacid activating reagent synthesis; preparation of water-soluble, nonimmunogenic polyamide crosslinking agents)

RN 60-56-0 HCAPLUS
CN 2H-Imidazole-2-thione, 1,3-dihydro-1-methyl- (CA INDEX NAME)

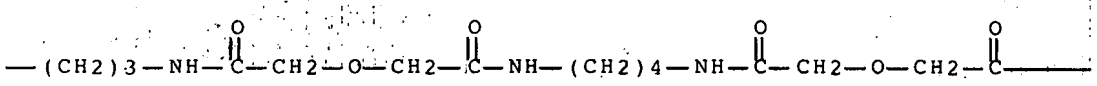


IT 216884-38-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of water-soluble, nonimmunogenic polyamide crosslinking agents)
RN 216884-38-7 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,3-propanediylimino(1-oxo-1,2-ethanediyl)oxy(2-oxo-1,2-ethanediyl)imino-1,4-butanediylimino(1-oxo-1,2-ethanediyl)oxy(2-oxo-1,2-ethanediyl)imino-1,3-propanediyl], α-[3-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]propyl]-ω-[2-[2-[3-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]propoxy]ethoxy]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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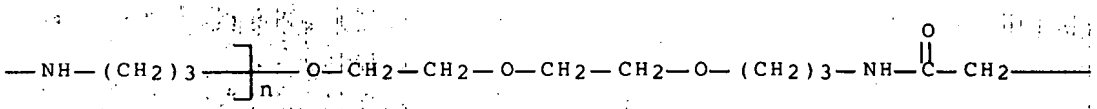

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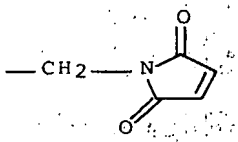

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 33, 63
IT 60-56-0, 2-Mercapto-1-methylimidazole 2524-64-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(diacid activating reagent synthesis; preparation of water-soluble, nonimmunogenic polyamide crosslinking agents)
IT 108-30-5DP, Succinic anhydride, reaction products with polyamides 6066-82-6DP, N-Hydroxysuccinimide, reaction products with polyamides 55750-62-4DP, N-Succinimidyl 3-maleimidopropionate, reaction products with polyamides 74124-79-1DP, N,N'-Disuccinimidyl carbonate, reaction products with polyamides 157069-29-9DP, reaction products with activation agents 216884-32-1P 216884-33-2P 216884-35-4P 216884-36-5DP, reaction products with activation agents 216884-38-7P 216884-39-8P 216884-40-1P 216884-41-2P 216884-42-3DP, reaction products with activation agents 216884-43-4DP, reaction products with succinimide derivs. 216884-44-5P 216884-45-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of water-soluble, nonimmunogenic polyamide crosslinking agents)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:300866 HCAPLUS Full-text
DOCUMENT NUMBER: 129:4872
TITLE: Preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents
INVENTOR(S): Klaveness, Jo; Rongved, Pal; Hogset, Anders; Tolleshaug, Helge; Naevestad, Anne; et al.
PATENT ASSIGNEE(S): Marsden, John Christopher, UK; Nycomed Imaging AS
SOURCE: PCT Int. Appl., 205 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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US 6680047	B2	20040120		
CN 1440816	A	20030910	CN 2002-160420 <--	200212 30
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PRIORITY APPLN. INFO.:

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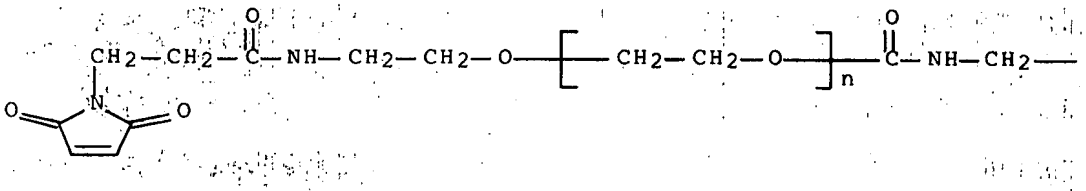
AB Targetable diagnostic and/or therapeutically active agents, e.g. ultrasound contrast agents, comprising a suspension in an aqueous carrier liquid of a reporter comprising gas-containing or gas-generated material, in which the reporter is coupled or linked to one or more non-bioactive vectors. Thus, a mixture of phosphatidylserine, phosphatidylcholine, and biotinamidocaproate-PEG3400-L-Ala- cholesterol (preparation given) was dispersed in 5% propylene glycol-water, flushed with perfluorobutane, and sonicated to give gas-filled encapsulated microbubbles.

IT 207403-10-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)

RN 207403-10-9 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]-ω-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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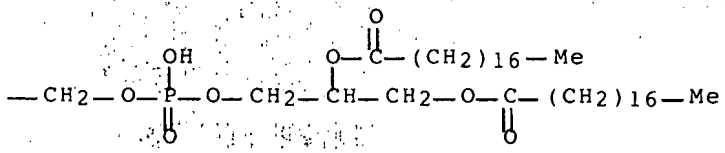
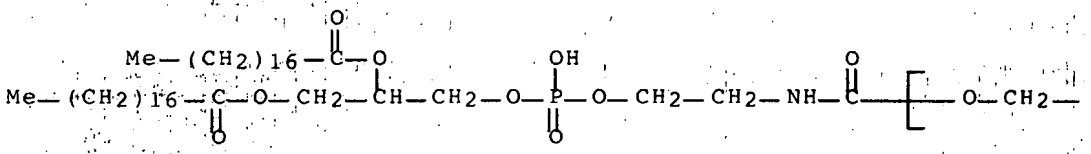


IT 207302-63-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)

RN 207302-63-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]-ω-hydroxy-, ether with L-arginylglycyl-L-α-aspartyl-S-[1-[3-[(2-hydroxyethyl)amino]-1-oxopropyl]-2,5-dioxo-3-pyrrolidinyl]-L-cysteine (9CI) (CA INDEX NAME)

PAGE 1-A



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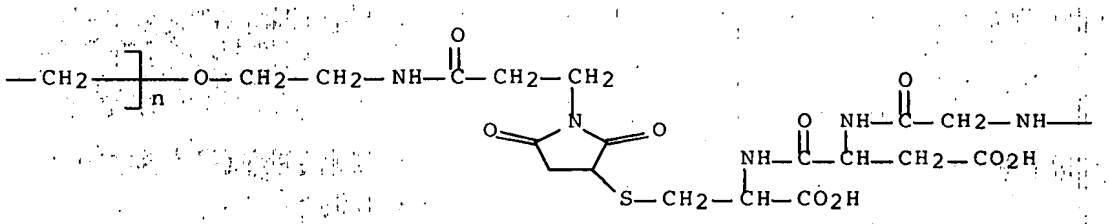

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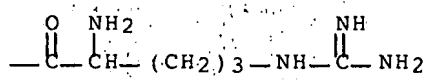
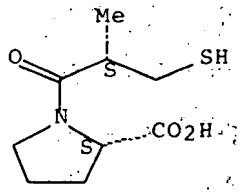


IT 62571-86-2, Captopril
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
RN 62571-86-2 HCAPLUS
CN L-Proline, 1-[(2S)-3-mercapto-2-methyl-1-oxopropyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC A61K051-08; A61K051-10; A61K049-00; A61K047-48
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 9, 63
IT Phosphatidylcholines, biological studies
Phosphatidylserines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
IT 207403-10-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
IT 59-30-3DP, Folic acid, C-terminal side chain amide with bispalmitoyllysyllysyllysyllysine amide 33276-37-8P 137056-72-5P
207287-14-7P 207287-17-0P 207287-18-1P 207287-19-2P
207287-20-5P 207287-21-6P 207287-22-7P 207287-23-8P
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207287-29-4P 207287-30-7DP, C-terminal lysine side chain amide

with folic acid 207287-32-9P 207292-74-8P 207292-78-2P
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207302-62-3P 207302-63-4P 207302-64-5P 207302-65-6P
207302-66-7P 207302-67-8P 207302-68-9P 207302-69-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)

IT 59-05-2, Methotrexate 59-30-3, Folic acid, biological studies 1405-20-5, Polymixin B sulfate 7207-68-3, 3',5'-Di-O-palmitoyl-5-fluoro-2'-deoxyuridine 9002-07-7D, Trypsin, thiolated, fluorescein-labeled 9013-20-1, Streptavidin 25104-18-1, L-Lysine homopolymer 38000-06-5, Poly-L-lysine, SRU 56124-62-0, N-Trifluoroacetyladriamycin-14-valerate 62571-86-2, Captopril
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)

L32 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:300865 HCAPLUS Full-text
DOCUMENT NUMBER: 129:4871
TITLE: Preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents
INVENTOR(S): Klaveness, Jo; Rongved, Pal; Hogset, Anders; Tolleshaug, Helge; Cuthbertson, Alan; et al.; et al.
PATENT ASSIGNEE(S): Marsden, John Christopher, UK; Nycomed Imaging AS
SOURCE: PCT Int. Appl., 150 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9818500	A2	19980507	WO 1997-GB2953	19971028
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WO 9818500	A3	19980723		

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RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

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AB Targetable diagnostic and/or therapeutically active agents, e.g. ultrasound contrast agents, comprising a suspension in an aqueous carrier liquid of a reporter comprising gas-containing or gas-generated material, in which the reporter is coupled or linked to one or more non-bioactive vectors. Thus, lipopeptide R-Lys(R)-Lys-Arg-Lys-Arg- Trp-Glu-Pro-Pro-Arg-Ala-Arg-Ile-OH (I; R = hexadecanoyl) (preparation given) containing a heparin binding site and a fibronectin binding site, was prepared by standard solid-phase methods. Microbubbles containing lipopeptide I were tested in vitro for binding to endothelial cells under flow conditions.

IT 207302-63-4P

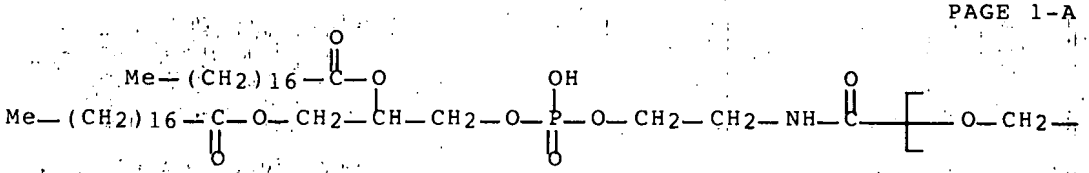
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)

RN 207302-63-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]-ω-hydroxy-, ether with L-arginylglycyl-L-α-aspartyl-S-[1-[3-[(2-hydroxyethyl)amino]-1-oxopropyl]-2,5-dioxo-3-pyrrolidinyl]-L-cysteine (9CI) (CA INDEX NAME)

PAGE 1-A



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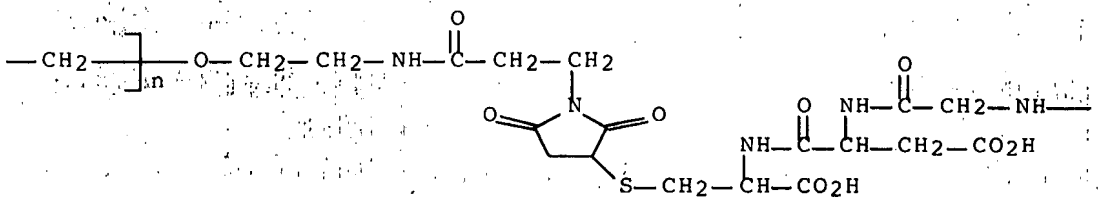

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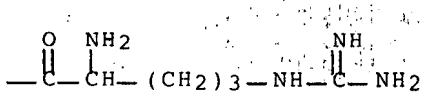
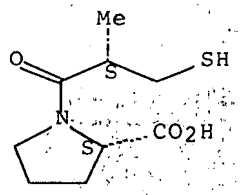


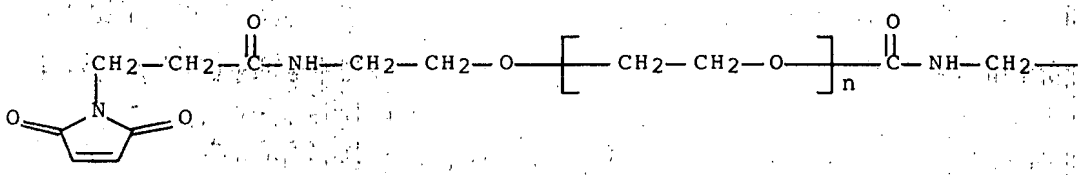
IT 62571-86-2, Captopril
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
RN 62571-86-2 HCAPLUS
CN L-Proline, 1-[(2S)-3-mercapto-2-methyl-1-oxopropyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 207403-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
RN 207403-10-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[6-hydroxy-6-oxido-1,12-dioxo-9-[(1-oxooctadecyl)oxy]-5,7,11-trioxa-2-aza-6-phosphanonacos-1-yl]-ω-[2-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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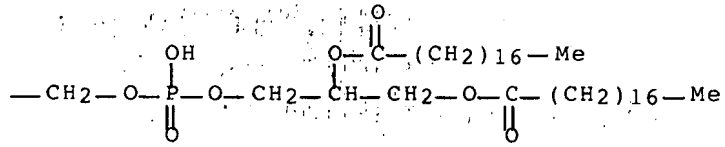

IC ICM A61K051-08
ICS A61K051-10; A61K049-00; A61K047-48
CC 34-3 (Amino Acids, Peptides, and Proteins)
IT Phosphatidylcholines, biological studies
Phosphatidylserines
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
IT 33276-37-8P 177910-35-9DP, conjugates with biotin-amidocaproate-alanine 207287-16-9DP, conjugate with ethylidenebishydroxyhexadecanoate-adipoyl chloride copolymer
207287-17-0P 207287-19-2P 207287-20-5P 207287-21-6P
207287-22-7P 207287-23-8P 207287-24-9P 207287-27-2P
207287-29-4P 207287-32-9P 207292-78-2P 207292-79-3P
207292-80-6P 207302-63-4P 207302-64-5P 207302-65-6P
207302-66-7P 207302-67-8P 207302-69-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
IT 1405-20-5, Polymixin B sulfate 25104-18-1, L-Lysine homopolymer
38000-06-5, Poly-L-lysine, SRU 62571-86-2, Captopril
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)
IT 29121-23-1P 72224-27-2P 109292-46-8P 115399-07-0P
120074-77-3P 207287-15-8P 207287-28-3P 207287-31-8P
207403-10-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents linked to non-bioactive vectors)

L32 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:667263 HCAPLUS Full-text
DOCUMENT NUMBER: 127:322794
TITLE: Property-affecting and/or property-exhibiting compositions for therapeutic and diagnostic uses
INVENTOR(S): Rabbani, Elazar; Stavrianopoulos, Jannis G.; Donegan, James J.; Liu, Dakai; Kelker, Norman

E.; Engelhardt, Dean L.
PATENT ASSIGNEE(S): Enzo Therapeutics, Inc., USA
SOURCE: Can. Pat. Appl., 275 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2190304	A1	19970616	CA 1996-2190304 <--	199611 14
CA 2279669	A1	19970616	CA 1996-2279669 <--	199611 14
CA 2279673	A1	19970616	CA 1996-2279673 <--	199611 14
CA 2279675	A1	19970616	CA 1996-2279675 <--	199611 14
EP 779365	A2	19970618	EP 1996-119961 <--	199612 12
EP 779365 R: DE, FR, GB, IT	A3	19991124		
JP 09313190	A	19971209	JP 1996-360043 <--	199612 16
US 2001006814	A1	20010705	US 1997-978633 <--	199711 25
US 2001006815	A1	20010705	US 1997-978634 <--	199711 25
US 2001006816	A1	20010705	US 1997-978637 <--	199711 25
US 2001007767	A1	20010712	US 1997-978632 <--	199711 25
US 2003087434	A1	20030508	US 1997-978635 <--	199711 25
US 2003104620	A1	20030605	US 1997-978636	199711

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JP 2007135605	A	20070607	JP 2007-44471		
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PRIORITY APPLN. INFO.:			US 1995-574443	A	
					199512
					15
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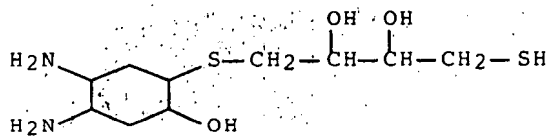
			CA 1996-2190304	A3	
					199611
					14
				<--	
			JP 1996-360043	A3	
					199612
					16
				<--	

AB Compns. useful for effecting and/or exhibiting changes in biol. functioning and processing in cells and biol . systems are provided which combine chemical modifications and/or ligand addns. with biol. functions in such a way as not to interfere substantially with the biol. functions. Such addnl. characteristics include nuclease resistance, targeting specific cells or cell receptors, and augmenting or decreasing interactions between the compns. and target cells. A title composition may constitute a nucleotide, nucleotide analog, nucleic acid, natural or synthetic polymer, ligand, or conjugate of a ligand with any of the preceding. For example, single-stranded DNA from a plasmid containing a gene of interest is complexed with an allylamine phosphoramidite-containing oligonucleotide primer (complementary to a region of the DNA distant from the gene of interest) which as been modified with trilactosyllysyllysine (preparation given), and the primer is extended with Klenow enzyme to form completely double-stranded DNA. On exposure of target cells to this DNA, the galactose moieties on the DNA bind to receptors on the cells, resulting in transport of the DNA into the cells. In another embodiment, DNA for antisense RNA sequences to regions of the HIV genome were inserted into the U1 small nuclear RNA coding region and the DNA was used to transform U937 cells. The transformed cells were resistant to HIV infection, as shown by inhibition of virus replication and p24 antigen production

IT 197431-06-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)

RN 197431-06-4 HCAPLUS

CN 2,3-Butanediol, 1-[(4,5-diamino-2-hydroxycyclohexyl)thio]-4-mercapto- (9CI) (CA INDEX NAME)



IT 197526-75-3P 197526-77-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)

RN 197526-75-3 HCAPLUS

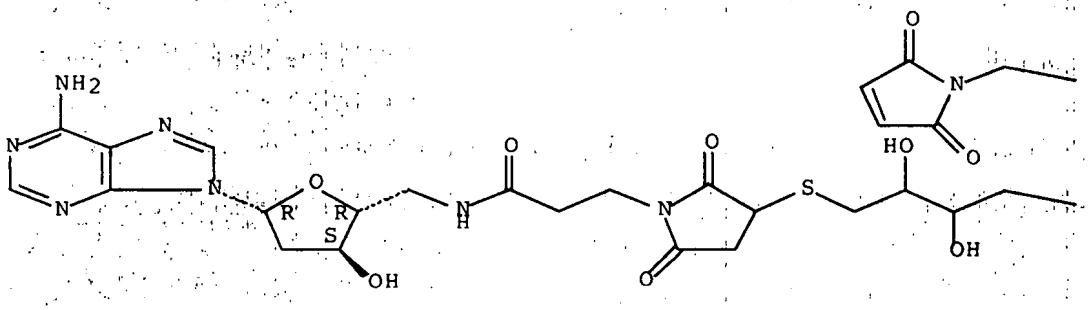
CN 5'-Adenylic acid, 2'-deoxy-, homopolymer, 5'→3'-ester with 5'-[[3-[3-[[4-[[4,5-bis[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]-2-hydroxycyclohexyl]thio]-2,3-dihydroxybutyl]thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxopropyl]amino]-2',5'-dideoxyadenosine (9CI) (CA INDEX NAME)

CM 1

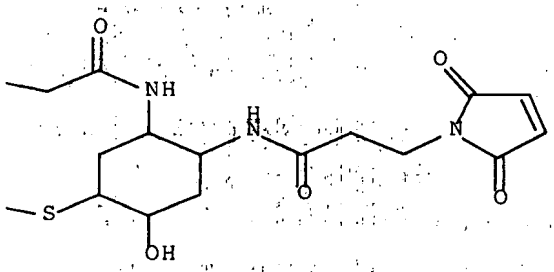
CRN 197431-08-6
CMF C41 H51 N11 O14 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



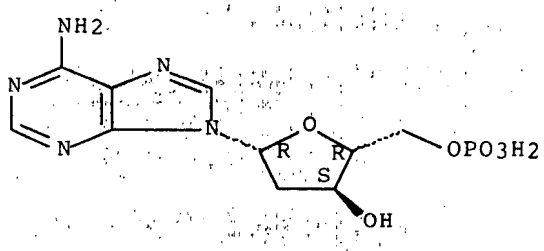
CM 2

CRN 25191-20-2
CMF (C10 H14 N5 O6 P)x
CCI PMS

CM 3

CRN 653-63-4
CMF C10 H14 N5 O6 P

Absolute stereochemistry. Rotation (+).



RN 197526-77-5 HCAPLUS

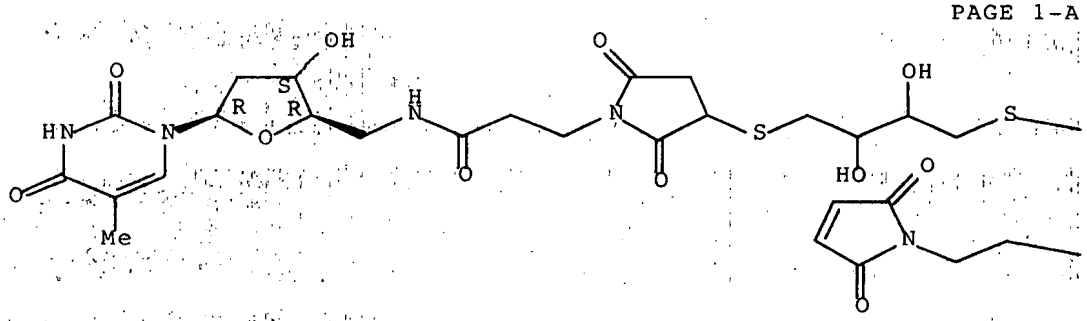
CN 5'-Thymidylic acid, homopolymer, 5'→3'-ester with 5'-[[3-[3-[[4-[[4,5-bis[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]-2-hydroxycyclohexyl]thio]-2,3-dihydroxybutyl]thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxopropyl]amino]-5'-deoxythymidine (9CI) (CA INDEX NAME)

CM 1

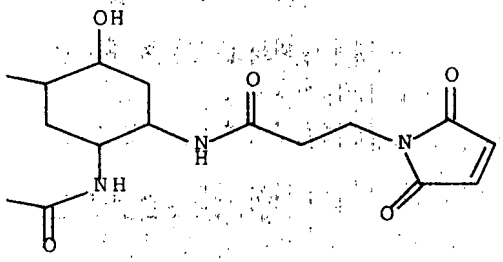
CRN 197431-10-0
CMF C41 H52 N8 O16 S2

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CM 2

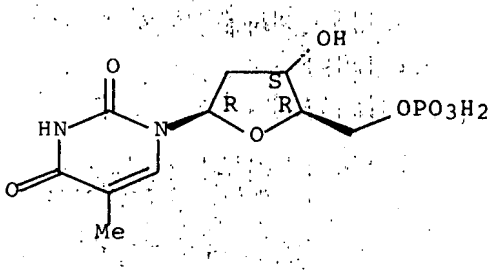
CRN 25086-81-1
CMF (C10 H15 N2 O8 P)x

CCI PMS

CM 3

CRN 365-07-1
CMF C10 H15 N2 O8 P

Absolute stereochemistry.



IC ICM C07H021-00
ICS A61K047-48; A61K031-70; A61K038-55
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 3
IT Nucleotides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(analogs and derivs., DNA containing; property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)
IT Antibodies
Fatty acids, biological studies
Polymers, biological studies
Polysaccharides, biological studies
Proteins, specific or class
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with nucleic acids; property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)
IT Fatty acids, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(esters, conjugates with nucleic acids; property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)
IT Carbohydrates, biological studies
Macromolecular compounds
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ligands; property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)
IT Peptides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleic acid targeting with; property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)
IT Cytokines
Growth factors, animal
Hormones, animal, biological studies
Lymphokines
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(property-affecting and/or property-exhibiting compns. for

therapeutic and diagnostic uses)

IT Coenzymes
Enzymes, biological studies
Fibronectins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)

IT 9004-10-8DP, Insulin, conjugates with oligo(T), biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)

IT 52123-30-5, L-Lysyl-L-lysine dihydrochloride 55750-62-4 68528-80-3, Suberic acid bis(N-hydroxysuccinimide) ester 195829-07-3 195992-88-2 195992-89-3 195992-90-6 197431-06-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)

IT 195829-08-4P 195829-09-5P 195992-84-8P 195992-87-1P 195992-91-7P 197526-74-2P 197526-75-3P 197526-76-4P 197526-77-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(property-affecting and/or property-exhibiting compns. for therapeutic and diagnostic uses)

L32 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:650458 HCAPLUS Full-text
DOCUMENT NUMBER: 121:250458
TITLE: Site-Specific Conjugation of a Temperature-Sensitive Polymer to a Genetically Engineered Protein
AUTHOR(S): Chilkoti, Ashutosh; Chen, Guohua; Stayton, Patrick S.; Hoffman, Allan S.
CORPORATE SOURCE: Center for Bioengineering, University of Washington, Seattle, WA, 98195, USA
SOURCE: Bioconjugate Chemistry (1994), 5(6), 504-7
CODEN: BCCHES; ISSN: 1043-1802
DOCUMENT TYPE: Journal
LANGUAGE: English

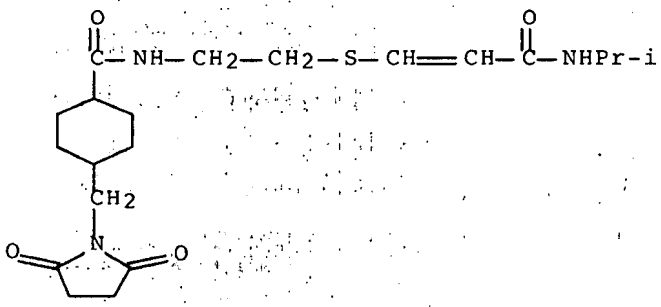
AB A genetically-engineered mutant of cytochrome b5, incorporating a unique cysteine residue, was conjugated to maleimide-terminated oligo(N-isopropylacrylamide). The conjugation of the protein by reaction of the cysteine residue, precisely positioned by site-directed mutagenesis techniques, with an activated oligomer containing only one reactive end group in the oligomer chain permits the site-specific and stoichiometric conjugation of the oligomer with the protein. The protein-oligomer conjugate was shown to exhibit lower critical solution temperature (LCST) behavior, similar to the free oligomer. Furthermore, the LCST behavior of the protein-oligomer conjugate is reversible and allows selective precipitation of the conjugate above its LCST.

IT 157615-31-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with site-specifically mutagenized cysteine-containing cytochrome b5, lower critical solution temperature behavior of conjugate in relation to)

RN 157615-31-1 HCAPLUS
CN Cyclohexanecarboxamide, 4-[(2,5-dioxo-1-pyrrolidinyl)methyl]-N-[2-[[3-[(1-methylethyl)amino]-3-oxo-1-propenyl]thio]ethyl]-, homopolymer (9CI) (CA INDEX NAME)

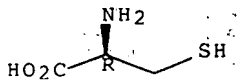
CM 1

CRN 157615-30-0
CMF C20 H31 N3 O4 S



IT 52-90-4, Cysteine, biological studies
RL: BIOL (Biological study)
(site-specifically mutagenized cytochrome b5 containing, conjugation of oligo(N-isopropylacrylamide) with, lower critical solution temperature behavior of conjugate in relation to)
RN 52-90-4 HCAPLUS
CN L-Cysteine (CA INDEX NAME)

Absolute stereochemistry.



CC 9-14 (Biochemical Methods)
IT 157615-31-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with site-specifically mutagenized cysteine-containing cytochrome b5, lower critical solution temperature behavior of conjugate in relation to)
IT 52-90-4, Cysteine, biological studies
RL: BIOL (Biological study)
(site-specifically mutagenized cytochrome b5 containing, conjugation of oligo(N-isopropylacrylamide) with, lower critical solution temperature behavior of conjugate in relation to)

L32 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:251305 HCAPLUS Full-text
DOCUMENT NUMBER: 116:251305
TITLE: Polyamine-linked Sepharoses: preparation and application to mammalian spermine synthase
AUTHOR(S): Shirahata, Akira; Zhu, Chang Lie; Akatsu, Sakae; Suzuki, Yasutoshi; Samejima, Keijiro

CORPORATE SOURCE: Fac. Pharm. Sci., Josai Univ., Sakado, 350-02, Japan
SOURCE: Protein Expression and Purification (1991), 2(4), 229-34
CODEN: PEXPEJ; ISSN: 1046-5928
DOCUMENT TYPE: Journal
LANGUAGE: English

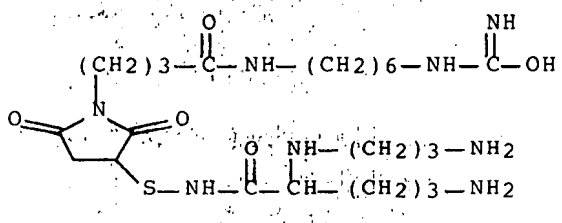
AB Seven different polyamine-linked Sepharose derivs. were prepared for the affinity chromatog. of spermidine and spermine binding macromols.: spermine synthase from rat and hog brain was used as a model protein with a spermidine binding site. Comparative studies of the affinities of the enzymes for the 7 matrixes suggested that 2 neg. charges, 3 to 4 methylene groups apart, should be present at the decarboxylated S-adenosylmethionine binding site and should improve the binding of the enzyme to the Sepharose derivative Two neg. charges at the spermidine binding site would be expected to do the same. Three affinity matrixes linked with 1,17-diamino-4,9,14- triazaheptadecane, 1,21-diamino-4,9,13,18-tetraazaheneicosane, or 5-sperminecarboxylic acid had an affinity for spermine synthases higher than that of spermine-Sepharose, which has been used for the purification of spermine synthase. The first of these matrixes was used and proved to be effective for the purification

IT 141255-06-3P 141255-11-0P
RL: PREP (Preparation)
(preparation of, for affinity chromatog. of polyamine-binding proteins)

RN 141255-06-3 HCAPLUS
CN Agarose, [6-[[4-[3-[[[5-amino-2-[(3-aminopropyl)amino]-1-oxopentyl]amino]thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxobutyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 172723-80-7
CMF C23 H44 N8 O5 S



CM 2

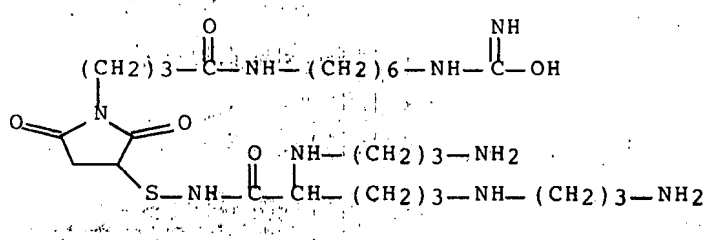
CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 141255-11-0 HCAPLUS
CN Agarose, [6-[[4-[3-[[[2,5-bis[(3-aminopropyl)amino]-1-oxopentyl]amino]thio]-2,5-dioxo-1-pyrrolidinyl]-1-oxobutyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 172964-11-3
CMF C26 H51 N9 O5 S

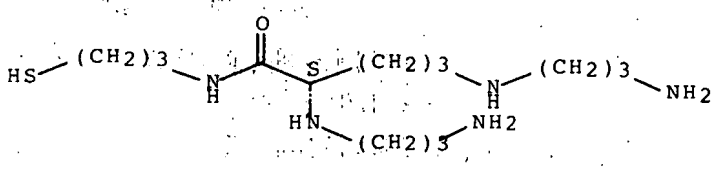


CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

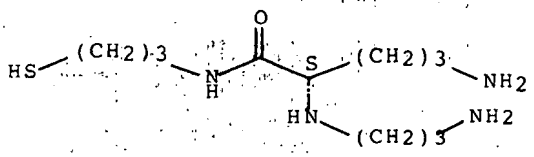
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 141136-49-4P 141136-50-7P
RL: PREP (Preparation)
(preparation of, for affinity chromatog. stationary phase preparation for polyamine-binding proteins purification)
RN 141136-49-4 HCAPLUS
CN Pentanamide, 2,5-bis[(3-aminopropyl)amino]-N-(3-mercaptopropyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 141136-50-7 HCAPLUS
CN Pentanamide, 5-amino-2-[(3-aminopropyl)amino]-N-(3-mercaptopropyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 9-3 (Biochemical Methods)
Section cross-reference(s): 7
IT 70356-67-1P 141255-06-3P 141255-07-4P 141255-08-5P
141255-09-6P 141255-10-9P 141255-11-0P

RL: PREP (Preparation)
(preparation of, for affinity chromatog. of polyamine-binding proteins)

IT 141136-49-4P 141136-50-7P
RL: PREP (Preparation)
(preparation of, for affinity chromatog. stationary phase preparation for polyamine-binding proteins purification)

=>